UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF INDIANA INDIANAPOLIS DIVISION

IN RE: METHOD OF PROCESSING) ETHANOL BYPRODUCTS AND) RELATED SUBSYSTEMS ('858) PATENT) LITIGATION)	No. 1:10-ml-02181-LJM-DML
RELATED CASES: 1:10-cv-00180-LJM-DML 1:10-cv-08000-LJM-DML 1:10-cv-08001-LJM-DML 1:10-cv-08002-LJM-DML 1:10-cv-08003-LJM-DML 1:10-cv-08004-LJM-DML 1:10-cv-08005-LJM-DML 1:10-cv-08006-LJM-DML 1:10-cv-08007-LJM-DML 1:10-cv-08008-LJM-DML 1:10-cv-08009-LJM-DML 1:10-cv-08010-LJM-DML 1:13-cv-08012-LJM-DML 1:13-cv-08014-LJM-DML 1:13-cv-08015-LJM-DML 1:13-cv-08016-LJM-DML 1:13-cv-08017-LJM-DML 1:13-cv-08018-LJM-DML 1:13-cv-08018-LJM-DML 1:13-cv-08018-LJM-DML 1:13-cv-08018-LJM-DML 1:13-cv-08018-LJM-DML 1:13-cv-08018-LJM-DML 1:14-cv-08019-LJM-DML	
1.14-67-00020-LJIVI-DIVIL)	

CORRECTED MEMORANDUM OPINION & ORDER AFTER BENCH TRIAL

Defendants/Counterclaim Plaintiffs ACE Ethanol, LLC; GEA Mechanical Equipment US, Inc.; Al-Corn Clean Fuel; Blue Flint Ethanol, LLC; Big River Resources – Galva; Big River Resources – West Burlington, LLC; Cardinal Ethanol; Flottweig Separation Technologies; Guardian Energy, LLC; ICM, Inc.; Lincolnway Energy, LLC; LincolnLand Agri-Energy, LLC; Little Sioux Corn Processors, LLLP; Pacific Ethanol Magic

Valley, LLC; Southwest Iowa Renewable Energy, LLC; David Vander Griend; Western New York Energy, LLC; Bushmills Ethanol, Inc.; Chippewa Valley Ethanol Company, LLC; Heartland Corn Products; United Wisconsin Grain Producers; Aemetis, Inc.; Aemetis Advanced Fuels Keyes, Inc.; Pacific Ethanol Stockton; and Iroquois Bio-Energy, Co. (all Defendants, collectively, "Defendants"), and Plaintiff/Counterclaim Defendants GS CleanTech Corporation and Greenshift Corporation (collectively, "CleanTech"), appeared for a Bench Trial on October 5-9 and 12-15, 2015, on Defendants' inequitable conduct counterclaim and/or defense. The Court now enters its Findings of Fact and Conclusions of Law.¹

I. FACTS

Because the Court was familiar with the parties, third-party entities and the technology involved in this Multi-District Litigation ("MDL"), there were foundational facts that were not specifically elicited during the Bench Trial. However, in order to provide context for Defendants' inequitable conduct allegations, the facts are necessary. Therefore, some of the facts set forth in the Facts section are undisputed facts proffered during the summary judgment phase of the Multi-District Litigation. Citation to the brief that contained those facts is intended to incorporate by reference the exhibits that are cited within the brief. All citations to the Master Docket will be in this format: MDN 1589 at (ECF page number).

CleanTech is the owner of the patents-in-suit, which have been termed the "858 patent family:" U.S. Patent Nos. 7,601,858 (the "858 patent"); 8,008,516 (the "516

¹ Where appropriate or necessary, each of the following Findings of Fact shall be considered a Conclusion of Law, and each of the following Conclusions of Law shall be considered a Finding of Fact.

patent"), 8,008,517 (the "'517 patent"); and 8,283,484 (the "'484 patent"). GreenShift Corporation is the parent corporation of CleanTech, the plaintiff in this action; the two companies share headquarters in Alpharetta, Georgia. MDN 1028 at 25-26. GreenShift and its subsidiaries focus on developing and commercializing technologies that promote more efficient use of natural resources. Id. at 26. GreenShift has a track record of identifying new market opportunities in long-established industries, and of developing valuable technology for market participants to exploit those opportunities. Id. For example, GreenShift has developed and continues to develop innovative technologies relating to corn oil extraction, adhesives, and paper. *Id.* CleanTech holds six patents in the corn oil extraction industry, U.S. Patent No. 7,608,729 (which is not at issue in this case), the '858 patent family, and U.S. Patent No. 8,168,037 (the "'037 patent"). ² Id. CleanTech has six additional patent applications pending before the PTO in this area.³ Id. Defendants allege that inequitable conduct by the named inventors, David Cantrell ("Cantrell") and David Winsness ("Winsness"), and their attorneys during prosecution of the '858 patent family should render them unenforceable.

A. BACKGROUND OF THE CLAIMED INVENTION

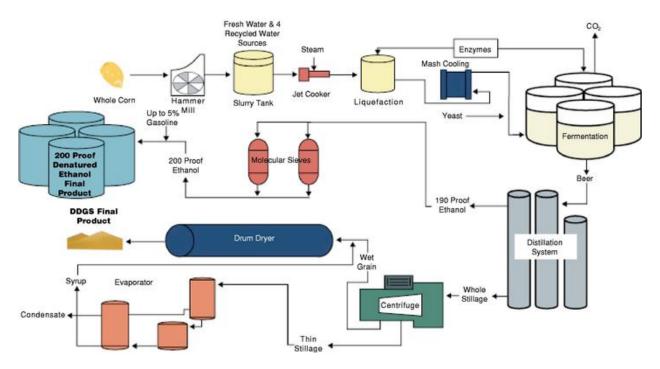
The '858 patent family relates to a method for recovering oil from the concentrated thin stillage (or syrup) historically produced by a conventional dry mill ethanol plant. The

² CleanTech is also the owner of a related patent, U.S. Patent No. 8,168,037 (the "'037 patent"). Defendants also allege that inequitable conduct by Winsness and his attorneys during prosecution of the '037 patent should render that patent unenforceable; however, the Court granted CleanTech's motion *in limine* to exclude this claim because it was never plead. See Master Docket No. 1612, Entry & Order for Thursday, September 24, 2015. As a result of that ruling, the Court did not hear evidence or argument regarding inequitable conduct as to the '037 patent.

³ Some of these patents may have issued since the Court published its Order on Cross Motions for Summary Judgment, but they are not asserted in this litigation.

methods involve running the syrup through a mechanical process, such as a centrifuge, to recover oil.

The "dry milling" process is the primary method of producing ethanol. MDN 1038 at 28. In this method, corn is ground and processed to release sugar that is fermented to produce ethanol. *Id.* This is the same general process used to produce beer or whiskey. The following diagram illustrates the dry milling process, focusing just on the production of ethanol:⁴



Starting in the upper right-hand corner of the diagram, the process begins with the corn being ground into meal and then mixed with hot water, recycled thin stillage, and enzymes. MDN 1173 at 16. The mixture is heated or "cooked" to form a less viscous, liquefied "mash" stream. *Id.* The mash stream is then fermented with yeast to produce

⁴ Securities & Exchange Comm'n, Form S-1, Hawkeye Holdings Inc., at 66 (May 30, 2006),

http://www.sec.gov/Archives/edgar/data/1363908/000104746906007798/a2170573zs-1.htm (last visited February 12, 2016).

ethanol and various fermentation byproducts. *Id.* at 16-17. The ethanol is boiled off, concentrated, and processed into marketable product in a distillation system. *Id.* at 17.

After the distillation of ethanol, the remaining process stream, which is known as whole stillage, contains water, corn oil and dissolved and undissolved solids. *Id.* The corn oil is low grade and not human consumable. *Id.* The whole stillage stream exits from the bottom of the distillation or beer column and cannot be disposed of or discarded without violating environmental regulations. *Id.* However, because whole stillage includes proteins, vitamins, minerals, and fats, it can be sold as a valuable ingredient in animal feed. *Id.*

The lower portion of the diagram above also shows the typical prior art stillage treatment process. Id. Whole stillage that exits the distillation system contains a large amount of solid material and very large amounts of water. Id. The next step in the conventional ethanol plant is to process whole stillage through a decanter centrifuge, which separates into a mostly solid stream and a mostly liquid stream that contains oil, water, and solids. Id. See also Securities & Exchange Comm'n, Form S-1, Hawkeye 30. Holdings 66-67 2006), Inc., at (May http://www.sec.gov/Archives/edgar/data/1363908/000104746906007798/a2170573zs-1.htm (last visited February 12, 2016) (describing the processing of whole stillage into "co-products" of the ethanol production process).

The mostly solids stream, known as "wet grains" has nutritional value and, historically, was sent to a dryer, then sold as feed for cattle and other livestock. MDN 1173 at 18. The dried wet grains are called Dried Distillers Grains or "DDG." *Id.* The mostly liquid stream is known as "thin stillage" and the presence of oil in this stream has

been known for many years, as described by the '858 patent family specification. *Id.* For environmental and other reasons, the prior art processing of thin stillage at dry mill ethanol plants included an evaporation step, typically consisting of an evaporator, to efficiently boil off and remove much of the water from the thin stillage. *Id.* The evaporated water is important to the functioning of the plant and is captured and recycled back into the ethanol production process. *Id.* The resulting post-evaporation stream is commonly referred to as "concentrated thin stillage," or "syrup," and is a mixture of water and dissolved and suspended solids, including corn oil. *Id.* Concentrated thin stillage or syrup was placed in an insulated storage tank to stay at a high temperature and contained enough moisture to pump it through pipes. *Id.*

Historically, ethanol plants mixed the syrup back in with the wet grains before the drying step, which increased the nutritional value of the cake and added to the product's feed value and market price. *Id.* The resulting product is known as Dried Distillers Grains with Solubles, or DDGS. *Id.* DDGS is an important revenue source for an ethanol plant. *Id.*

When run under standard operating conditions, the prior art process typically produced concentrated thin stillage within a well-known range of temperature, pH, and moisture content. *Id.* at 19. Evaporators in a conventional dry mill plant typically operate between 150°F and 212°F, because temperatures outside this range cause problems such as fouling or viscous flow. *Id.* The ultimate temperatures of the syrup may depend upon many factors, but is generally in the same range, which is described in U.S. Patent No. 4,944,954 to Strop ("Strop patent"), at column 10, lines 58 to 59. *Id.*

Further, thin stillage concentrate is typically slightly acidic (pH below 7) because it

contains acidic organic compounds and small amounts of acid added for process control purposes. *Id.* The acidity is not affected significantly by the evaporation process; therefore, the syrup at a typical dry mill ethanol plant will have a pH somewhere between 3.0 and 6.0, as described in U.S. Patent No. 5,250,182 to Bento ("Bento patent"), at column 9, lines 49 to 51. *Id.*

"Moisture content" is a measure of the amount of water contained in a mixture, made on a mass or volume basis; its inverse is the solids concentration. *Id.* The moisture content of the thin stillage stream entering the evaporation stage typically ranges from approximately 80 weight percent to 93 weight percent; the concentrated thin stillage or syrup exiting the evaporation stage typically has a moisture content ranging from approximately 55 weight percent to 80 weight percent. *Id.* at 19-20. The prior art Agri-Energy, LLC, ethanol plant already produced syrup under these conditions (pH of 4.2, moisture content of 70%-80%, temperature of 180°F) before it began dealing with Winsness and Cantrell or recovering oil from the syrup using a centrifuge. *Id.* at 20.

In summary, a typical, prior art conventional dry mill ethanol plant produces concentrated thin stillage or syrup within the following parameters: temperature - 150°F to 212°F; pH – 3.0 to 6.0; moisture content (weight percent) – 55% to 80%. *Id.*

B. RELATIONSHIP WITH AGRI-ENERGY

The Court heard testimony from the inventors regarding their relationship with Agri-Energy in 2003 and 2004. However, the Court found Cantrell's testimony on any topic of little credible value. CleanTech introduced evidence of Cantrell's medications and their side-effects in an apparent attempt to defuse any negative inference to be drawn from Cantrell's inconsistent statements. PTX2248. In addition, CleanTech made much of Cantrell's poor health, Trial T. at 31-33, again apparently to negate any negative inferences that might be drawn from Cantrell's performance on the witness stand. The Court notes that Cantrell had some difficulty staying focused. Further, although Cantrell was argumentative and unclear about facts when questioned by Defendants' counsel, he fortuitously remembered when events took place and recalled the "real" meaning of documents when questioned by CleanTech's lawyers. This difference was more than faded memory refreshed by looking at documents. Cantrell's testimony sounded carefully scripted rather than genuine and generally dismissive of the contemporaneous documentary evidence. Despite CleanTech's attorney's attempts to explain these testimonial difficulties by reference to Cantrell's health, the Court relies primarily on the documents and testimony from other witnesses about the relationship between Agri-Energy and the inventors during this period, finding Cantrell's testimony often times less than helpful.

From 1998 to 2012, Agri-Energy operated a conventional dry-mill ethanol plant in Luverne, Minnesota. MDN 1173 at 39. Luverne is located in western Minnesota, approximately 200 miles by car from Minneapolis. *Id.* In the early 2000s, Agri-Energy was researching ways to dry concentrated thin stillage and wet distillers grains and contacted Vortex Dehydration Technology ("VDT"), a business formed by Cantrell, to see if VDT's Windhexe machine could dry its mixtures. *Id.* An employee of Agri-Energy brought samples to VDT's location to test the drying process. *Id.* This test was Cantrell's first exposure to the ethanol business. *Id.* at 40. Based on that test, Cantrell knew that the byproducts contained oil and might have value. DX 359. However, he did not know whether the oil should be recovered from thin stillage before or after the standard ethanol

evaporators (after the evaporators the product is called "concentrated thin stillage" or "syrup"). *Id.*

Mark Lauderbaugh ("Lauderbaugh") is the owner of Trident Process, Inc. ("Trident"), a company located in Bloomington, Minnesota that "provides process equipment to the chemical processing, pulp and paper, power, petroleum refining, food, pharmaceutical, and other industrial markets." MDN 1173 at 40. Lauderbaugh signed an Independent Contractor Agreement with VDT dated January 1, 2002, that entitled him to promote the sale of the Windhexe and "Related Apparatus" for the "processing of meat and meat byproducts and waste and wastewater management and treatment for fish, livestock, and poultry production" in a certain territory. *Id.* Lauderbaugh signed an "Agreement for Confidentiality, Protection of Proprietary Information, Assignment of Inventions and Non-Solicitation" as well. MDN 1028 at 53. Lauderbaugh was a member of VDT's "Marketing Team." MDN 1173 at 40. Through Trident, Lauderbaugh had also been selling Alfa Laval equipment to ethanol plants since the late 1990s. *Id.* Agri-Energy was one of his long-time customers. *Id.*

In June 2003, Cantrell arranged to have Agri-Energy send Greg Barlage ("Barlage"), then of Alfa-Laval, typical samples of thin stillage and syrup. Cantrell – Direct, at 82; DX101. When Barlage received the samples, he heated them to 176°F and spun them in a centrifuge. DX133. On June 12, 2003, Barlage wrote a report of his results in which he concluded, in relevant part, "Something in the evaporation process allows for the product to breakdown to a level where the oil can be taken out easily." DX 133. Barlage sent the report to Cantrell and Winsness.

On June 29, 2003, Cantrell sent an email to Agri-Energy stating,

We are very excited about the potential to remove the oil from your waste syrup. The available oil in your syrup is approximately 13,000,000 pounds per year. We are optimistic that we can recover over 80% of this oil. . . .

After reviewing the first testing of the product, we are considering a nozzle machine, but a nozzle machine on the concentrated liquid with 56% solids by volume in it could have a tough time handling the solids. With this, a decanter and centrifuges may be necessary. Because of the speed that the oil separated from the test product, taking the product from the top of the feed tank that feeds the dryer may be the most logical option. This is especially true since you are feeding the bottom of the tank. The oil should be rising and the solids staying closer to the bottom. We have methods of just sucking the top of the tank and centrifuging that product.

To prove this theory, I think the next logical step is to do a small spin test at your plant with a Gyro tester and fresh product. This will tell us the true quality of the product and the quantity of solids that make it to the top of the tank. If step 2 is successful, we need to start talking about the right centrifuge to bring in for a test. We see two options, a three phase nozzle machine (harder to get a test unit) or a solids discharging machine (currently available). Rental fees would be about \$5000/month and we would have someone there to help optimize the project. However, this machine selection should take place after the gyro test occurs.

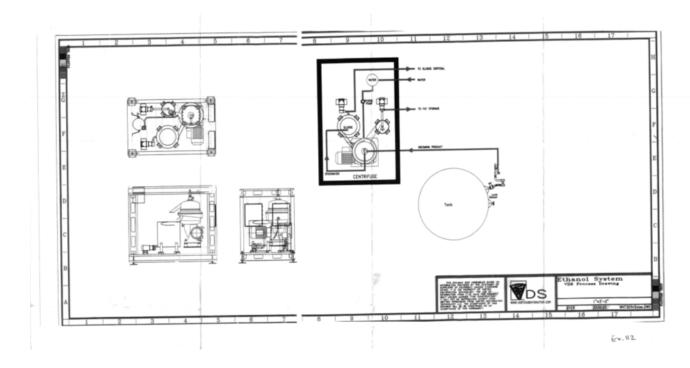
DX111. He concluded, "The technology is available to remove the oil, and the quick payback from the new revenue stream, makes this a very viable program." *Id.*

On July 10, 2003, Barlage and Lauderbaugh traveled to Agri-Energy to perform an on-site "gyro test." Barlage Video Testimony; Lauderbaugh Dep. Designations at 104. The test was performed with a bench-top centrifuge. *Id.* Based on that demonstration, the next day, Agri-Energy's plant manager, Jay Sommers ("Sommers"), reported to his board of directors, "Things look promising here." DX 214. This reflected Sommers' view that the demonstration had proven that corn oil could be recovered from syrup using a centrifuge. Sommers Video Trial Testimony.

Even before Barlage's and Lauderbaugh's visit to Agri-Energy, Cantrell and Winsness began preparing a proposal to sell an oil extraction system to Agri-Energy.

DX107. The initial draft offered an oil recovery module to separate oil from "condensed sludge," which Agri-Energy could buy for \$373,000.00 after a thirty-day performance test period. *Id.* The draft contained a picture of the module as well as estimates of productivity, operating costs and the net value to Agri-Energy. *Id.* Other drafts were similar. DX318.

On or around July 22, 2003, VDT's employee Jerry Dyer ("Dyer") began working on a process drawing for an ethanol oil recovery system at Winsness' direction. Dyer Video Trial Testimony. The drawing, entitled "Ethanol System VDS Process Drawing" ("Ethanol System Diagram") is reproduced here.



DX112. Winsness told Dyer what to include in the diagram, including a solids-ejecting disk-stack centrifuge, and was instructed to use drawings of a system sold and used in the poultry farming industry as a guide. Dyer Video Trial Testimony. Dyer understood that the drawings would be used for sales purposes by Cantrell and Winsness. Dyer

Video Trial Testimony.

Sommers testified that he believed or assumed Agri-Energy received a copy of the Ethanol System Diagram some time prior to Agri-Energy's board meeting on August 18 or 19, 2003, but could not be sure; and that he understood it to be a "ready to go" system to produce oil from the syrup at its facility. Sommers Video Trial Testimony. Sommers understood that the centrifuge in the system would be a disk stack centrifuge that would be placed as close as possible to the exit from the evaporators. *Id.*

Cantrell and Winsness went through several iterations of a proposal, and on August 1, 2003, Cantrell sent an email with a letter attached to it to Sommers at Agri-Energy copying Gerald Winter ("Winter") at Agri-Energy, Lauderbaugh, and Winsness. In the email, Cantrell asks Sommers to "review the attached proposal." DX105. The proposal, dated July 31, 2003 ("July 31 Proposal"), stated, in pertinent part,

[VDT] would like to offer Agri-Energy a No-Risk trial "Oil Recovery System". The test module is designed to process 18,000 lbs. per hour of evaporator condensate and recovers 16,000 lbs. of oil per day adding annual profits of \$312,000 to \$530,000 per year. The module will contain all items necessary to separate the oil, and pump the resulting oil and sludge to their respective destinations. The oil will be cleaned to an acceptable level for boiler fuel, or it can be sold as a nutritional ingredient.

No-Risk Trial:

VDS [sic] will allow Agri-Energy 60 days to operate the unit and confirm its value. At the end of the 60 days Agri-Energy will either:

- a) purchase the system (system price: \$423,000) or,
- b) return the skid to VDS (no questions asked).

Confidentiality / Non-Compete:

All discoveries resulting in the trial process shall remain the property of Vortex Dehydration Technology, LLC and is confidential information. Due to the great expense by VDT to design and fabricate the oil recovery system, Agri-Energy agrees to protect the confidential information and not to purchase a reverse-engineered system from any other

organization that infringes on the VDS [sic] process and/or process patent.

Id. (emphasis in original). The July 31 Proposal further stated that the system needed a water line for use by "the Integrated CIP System (Self-Cleaning)." *Id.* It also referenced a process patent. *Id.* No-risk trials were a sales technique frequently used by VDT, and were common in the ethanol industry. MDN 1173 at 52. However, the letter lacked payment terms, dates and terms of delivery, a list of components of the "test module" or specifications of same, and a signature block. DX105.

Sommers testified that he believed the July 31 Proposal was an offer to sell Agri-Energy an oil recovery system. Sommers Video Trial Testimony. He understood that the system would include a disk stack centrifuge that would process hot syrup and separate the oil. *Id.* Sommers testified that "[i]f the offer was accepted" he would have expected other documents to follow that would have been more specific about payment terms and dates for delivery. *Id.*

CleanTech never produced the August 1, 2003, email and the attached proposal during discovery in this litigation notwithstanding the fact that it was authored by Cantrell and copied to Winsness and Lauderbaugh; Winsness also sent an electronic copy of the July 31 Proposal to Cantrell in 2010.

On August 18, 2003, Cantrell travelled to Agri-Energy. DX106. The next day, on August 19, 2003, the following occurred:

(i) Cantrell presented his proposal to the Agri-Energy Board of Directors (the "Board") for "a process where the corn oil is pulled off." DX216. Cantrell told the Board that the system worked and would generate additional income for Agri-Energy. *Id.* The Board minutes from the meeting contain no reference to any further "testing" or

"experimenting" that needed to be performed. Id.

- (ii) At 7:58 a.m., Winsness reported to VDT shareholders that Cantrell "is meeting with an ethanol plant today and expects to have an order in the near future (\$400K)." DX144. Winsness further reported "we are attempting to patent the process as an additional barrier so that we can obtain maximum market share." *Id.*
- (iii) At 10:37 p.m., Winsness updated VDT's shareholders, reporting that Cantrell "had a great meeting with Agri-Energy for a Centrifuge System. He presented the system to the board of directors. This first sale will lead into 10 additional units as several board members of Agri-Energy sit on the board of 10 additional plants." DX144. Dyer understood this to be a reference to a potential sale of an ethanol system by VDT. Dyer Video Trial Testimony.

On August 27, 2003, Cantrell reported to Rod Lee, VDT's Chairman, and Winsness that "we have made an offer to Agri-Energy." DX144. Cantrell stated, "Also, attached is the offer to Agri-Energy." *Id.*

On September 3, 2003, Winsness emailed Winter about solutions to "the Drum Dryer Problems." DX219. Winsness hypothesized that the "problems" may relate to the presence of corn oil in the syrup. *Id.* He reported, "We can remove the oil from the syrup." *Id.* He further reported, "We have outlined two proven methods" . . . "using 50 year old [sic] technology." *Id.*

Sometime early in 2004, Sommers notified VDT that Agri-Energy wanted to install a centrifuge to recovery oil; VDT informed Sommers that the one they had previously discussed was not available. Sommers Video Trial Testimony. However, in a letter dated February 9, 2004 ("February 2004 Proposal"), on letterhead for "CMC", Cantrell proposed

the following to Agri-Energy:

CMC, in conjunction with Alfa Laval would like to enter into a research trial with Agri-Energy to determine the merits of the Ethanol Oil Recovery System.

Research Trial:

The test protocol will consist of timed runs to determine the quantity of oil produced, oil quality and the economics of the operation of the system. The research will be conducted within a 30 day period.

Confidentiality / Non-Compete:

All discoveries resulting in the trial process shall remain the property of CMC and is confidential information. Due to the great expense by CMC to design and fabricate the oil recovery system, Agri-Energy agrees to protect the confidential information and not to purchase a reverse-engineered system from any other organization that infringes on the CMC process and/or process patent.

* * *

Requirements (by Customer):

Agri-Energy agrees to pay \$5,000 toward the cost of the research trial.

* * *

Thank you for your interest in testing the Ethanol Oil Recovery system. We both agree that the opportunities are enormous and time is of the essence in making this decision.

DX148. The February 2004 Proposal included a payback and/or value analysis and included an estimate for the cost of the "Ethanol Oil Recovery System:" "\$423,000." *Id.*

On March 24, 2004, Alfa Laval's salesman, Dell Hummel ("Hummel") drafted a proposal for Agri-Energy entitled "Field Test Equipment Rental Proposal." DX222. The proposal listed an "Alfa Laval model CHPX510 solids-ejecting disc-stack centrifuge with HP motor, starter panel and control panel" as the "Field Test Equipment;" and anticipated "Test Period" of approximately one month; and a "Test Rate" of \$5,000.00, total for freight

and start up supervision. *Id.* The proposal was valid for 60 days and the terms were net 30 days. *Id.* After some non-relevant revisions in April 2004, Agri-Energy accepted the proposal and received the centrifuge.

On August 24, 2004, CleanTech offered to sell a "patent-pending" corn oil extraction system to Agri-Energy; no mention of a license was made. DX236. Similarly, on September 13, 2004, and October 18, 2004, CleanTech made additional offers to sell a "patent-pending" corn oil extraction system. DX241 & DX243. On December 21, 2004, CleanTech offered to license a corn oil extraction system to Agri-Energy. DX 250. On January 17, 2005, CleanTech offered Agri-Energy a share in a collection of companies producing corn oil using the CleanTech oil extraction system as an "early adopter." DX245. Agri-Energy rejected all of these offers.

C. CANTRELL & WINSNESS HIRE A PATENT ATTORNEY

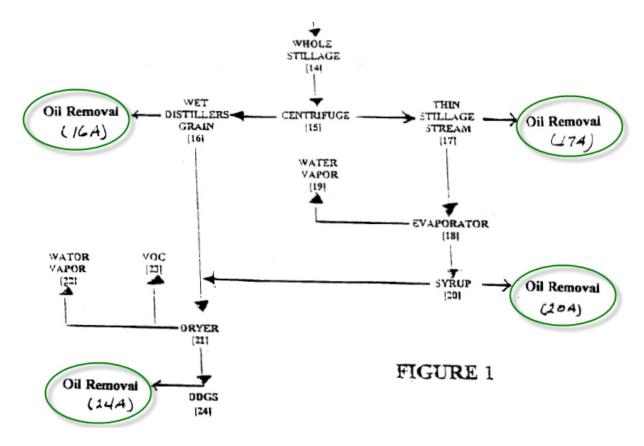
On February 4, 2004, Winsness sent an email to Cantrell with the subject line "Ethanol Oil Patent." DX 147. Therein, Winsness identified the method they intended to patent: separate corn oil from concentrated thin stillage using a centrifuge. The email listed the parameters of the method: An evaporator would be used to concentrate thin stillage to a moisture content between 60% and 85%, and the concentrated thin stillage would then be mechanically processed to separate the oil from the concentrated thin stillage. *Id.* The temperature and pH of the thin stillage would be the standard values of thin stillage in an ethanol plant, *i.e.*, 150°F to 212°F; pH of 3 to 6. *Id.* Winsness wrote, "[I]t won't work" at any other ranges. *Id.* Winsness specified that their method would use a disk stack centrifuge, Alfa Laval Model 617. *Id.*

On or about February 8, 2004, Cantrell contacted patent attorney Michael Dorisio

("Dorisio"), of King & Schickli, PLLC, to discuss patenting the corn oil extraction technology. Dorisio Video Trial Testimony. On the same day, Cantrell or Winsness printed out a page from the PTO website that advised them that a provisional patent application could be filed up to one year following the date of the first offer for sale. DX751.

On February 9, 2004, Dorisio sent an email to Cantrell as a follow-up to the previous day's conversation. MDN 1589, Stipulations of Fact for Bench Trial, ¶ 1 ("Stipulations ¶ 1"). Among other things, Dorisio informed Cantrell that an invention could not be patented if it had been sold, offered for sale, or publicly disclosed more than one year before filing a patent application and inquired about such events. Dorisio Video Trial Testimony. After that first contact, Cantrell testified that he relied on Winsness to work with the patent attorneys. Cantrell – Direct at 304, 312, 361 & 371; Cantrell – Cross at 406.

On May 6, 2004, U.S. Patent Publication No. 2004/0087808, the application of John Prevost and Neal Hammond published ("Prevost"), Stipulations ¶¶ 4 & 5. Prevost provides a description of the prior art dry milling process to produce ethanol, including prior art stillage processing. DX164. It describes methods for removing corn oil from a number of points during stillage processing, including from the wet distillers' grains, from the thin stillage, from the syrup, and from dried syrup. *Id.* Figure 1 in Prevost is a diagram of the typical dry mill ethanol processing plant including the stillage treatment process including oil recovery points identified. *Id.* The stillage treatment process from Figure 1 is reproduced here with the oil recovery points circled.



Id. The Oil Removal point labeled "20A" is from the syrup after the evaporator. Id.

The Prevost application discloses several methods to recover oil including centrifugation, pressing, and solvent extraction. *Id.* With respect to thin stillage and syrup, Prevost states, in relevant part:

[0013] The dried distillers grains can be subjected to an oil removal step. It is preferred that an oil removal technique be used that will remove substantially all of the oil from the dried distillers grains. Non-limiting examples of oil removal techniques that can be used include centrifugation, pressing with and without the use of a solvent, and solvent extraction without the use of pressing. The preferred solvent for solvent extraction is a normally gaseous solvent, more preferably butane, propane, or mixture thereof. By normally gaseous we mean a solvent in which the oil is soluble and being in the gas phase at atmospheric pressure and at room temperature (approximately 75°F).

[0014] The syrup can be added to the wet distillers grain prior to the drying step and be processed under the same conditions as the wet distillers grains as described above. An oil removal step can be performed on either the thin stillage before evaporation or on the syrup after evaporation. If

performed prior to evaporation, an oil removal process such as centrifugation is preferred whereas after evaporation a solvent extraction process is preferred to extract at least a portion of the oil from the syrup.

* * *

[0026] Both the thin stillage and syrup can each be individually, or a mixture thereof, conducted to an oil removal step, 17A and 20A. For example, the thin stillage can be centrifuged in a similar manner as the wet distillers grains and the resulting oil/water mixture sent to a separation zone wherein the water is separated from the oil. As mentioned previously, separation can be done by simple decanting, by distilling the water from the oil, or by passing a solvent, in which the oil is at least partially soluble or miscible, can be run counter current with the flow of mixture, which solvent will pickup [sic] the oil and carry it in the opposite direction than the water. If using solvent extraction it is preferred that the material being oil-extracted be [sic] substantially dry. For example, it is preferred to dry the syrup by any suitable means, preferably by spray drying, before subjecting it to a solvent.

DX164 at 7-8.

Prevost explicitly claims the process of using a centrifuge to remove oil from syrup in Claims 19 and 20:

- 19. The process of claim 12 wherein the thin stillage stream is conducted to an evaporator to produce a syrup stream containing less than about 15 wt. % water, which syrup stream is itself conducted to an oil removal stage wherein at least [sic] of the oil is removed from the syrup.
- 20. The process of claim 19 wherein the oil is removed from the syrup by centrifugation to produce a mixture of oil and water stream.

Id. at 11.

At the summary judgment phase, the parties disputed whether or not there is an error in Claim 19 where the reference is "a syrup stream containing less than about 15 wt. % water": Defendants, relying upon co-applicant Neal Hammond's ("Hammond's") testimony, as well as expert testimony, claimed that one of ordinary skill in the art would realize that it is an obvious error and that it should have read "about 15 wt. % *fat* or *oil*", MDN 1173 at 25-26; CleanTech asserted that it is impossible to tell what Prevost meant

based on Hammond's or any other expert's testimony, MDN 1028 at 43-44.

In June 2004, Winsness annotated Barlage's test report from June 2003, labeling it the "original discovery of oil separation June 2003." DX792; Winsness – Direct at 543-45; Winsness – Cross at 677-78. At trial, Winsness disavowed the idea that his notation would cause an attorney, or anyone else, to believe that he and Cantrell had invented anything in June or July 2003. Winsness – Direct at 562, 564. His testimony on this point is belied by contemporaneous documents dating back to June, July and August of 2003 where Winsness himself boasted to his board of directors that the "first sale" to Agri-Energy would lead to 10 more from members of Agri-Energy's board of directors. DX144. Further, Winsness also wrote in February 2004 that the process would not work unless certain system parameters were true. DX147. He claims he was looking for validation from Cantrell, but there is simply no language in the email from which to infer that Winsness was uncertain about the parameters under which their invention would work. The only reasonable inference from the evidence is that Winsness knew they had invented a process for removing oil from concentrated thin stillage using a centrifuge in 2003.

On July 29, 2004, Winsess contacted Dorisio to arrange for filing of a provisional patent application and provided Dorisio with information about the oil recovery method and apparatus on or about the same date. MDN 1589, Stipulations ¶ 2. Included in those materials, was a copy of the Barlage test results from June 2003, with Winsness' handwritten note, "original discovery of oil separation June 2003." DX792. In the same materials, Winsness described the Barlage bench-top test as a success. *Id.* Dorisio testified that he did not believe that June 2003 was the "invention" date, because there

was no reduction to practice. Dorisio Video Trial Testimony. However, the Court found Dorisio's testimony less than credible. First, Dorisio was being coached throughout his deposition by CleanTech's lawyers, often being instructed not to answer, and at a critical point in the testimony when Dorisio had been asked to explain a draft clearance opinion, he specifically asked for a break to consult with the attorneys. Thereafter, his answers were even more carefully scripted, terse and rehearsed. Second, Dorisio's handwritten notes on the Prevost application, DX684, evidence that, at the time, he believed Cantrell's and Winsness' "invention" pre-dated anything that Prevost had done. This is substantiated by the breadth of the non-provisional application he filed on May 5, 2005, along with his letter filed the same day stating that the Prevost application "may be found to claim the same invention as at least one claim of the instant application." See DX686; Stipulations ¶ 7. The only reasonable inference is that Dorisio was attempting to swear behind the Prevost application.

It is also clear that Dorisio's firm believed that Prevost likely contained a mistake with respect to the use of a centrifuge to recover oil from thin stillage. DX684. A mistake, which if corrected, reads directly on the claims of the '858 patent family application.

On or around July 1, 2005, Dorisio's associate drafted a patentability and clearance opinion. DX679. Therein, the firm references an invention date in 2003 that coincides with the Barlage testing and the July 2003 bench-top testing at Agri-Energy. DX788. Dorisio testified that he sent this draft to Cantrell and Winsness. *Id.* However, there is no evidence that Cantrell or Winsness either corrected Dorisio's opinion, told Dorisio about the July 31 Proposal, or disclosed the Ethanol System Diagram to him.

On September 30, 2005, Dorisio filed the application that eventually led to the '516

patent. DX279. The application was published by the PTO on February 23, 2006. Id.

D. WINSNESS HIRES CANTOR COLBURN TO PROSECUTE THE PATENTS

According to Winsness, in March 2008, he made the decision to transfer prosecution of the '858 patent family to his neighbor, Peter Hagerty ("Hagerty") at Cantor Colburn LLC, because it was more convenient for him. Winsness – Direct at 560. In addition, Hagerty testified that the size and national reputation of Cantor Colburn persuaded Winsness to switch. Hagerty – Direct at 964-66; Hagerty – Cross at 1251-52. On or about March 18, 2008, Dorisio transferred the file to Hagerty. Stipulations ¶ 8.

Hagerty testified that his initial review of the file was fairly limited. Hagerty – Direct at 978. It was telling that, when asked about the status of the '858 patent application when he took over, Hagerty derisively commented with respect to the broadest of the claims that he had "never seen a claim in that format in all of his years in practice." Hagerty – Direct at 974. See also id. at 975-76. He quickly added that he would amend it, even though he considered swearing behind Prevost, but rejected it. See Hagerty – Direct at 980-82; see also Hagerty – Cross at 1259-60, 1272-74 (discussing the substantive amendments to claims in response to the first office action in the '858 patent history).

Dorisio claims that he sent all of his analysis, including his copy of the Prevost Application and handwritten notes thereon as well as his firm's patentability and clearance opinion, but Hagerty says he never received any communications regarding the Prevost Application, or the clearance opinion. Hagerty – Direct at 981-82, 1056, 1080, 1086. There is no evidence that the inventors told Hagerty about them either. Hagerty – Direct at 1075-76.

On June 13, 2008, the '858 patent application was rejected over the Prevost Application, among other references. PTX2059 at 140. In response, Hagerty "substantively" amended the claims and argued that the Winsness/Cantrell claims were different from Prevost because Prevost did not disclose or suggest processing syrup in a centrifuge to recover oil as claimed. Id. at 130. Hagerty admitted at trial that he was aware that Prevost claimed a process for recovering oil from syrup with a centrifuge, but that it was at a different moisture level. Hagerty – Direct at 1003-08. In fact, Hagerty thought Prevost taught centrifuging a free-flowing powder (syrup with a 15% moisture level), but he could never explain at trial how that could be done. Similarly, Hagerty could never explain how the inventors could claim centrifuging syrup at just greater than a 15% moisture level since it was insignificantly different from the range identified in claim 20 of the Prevost Application. Id. at 1006-10 (discussing claims 19 and 20 of the Prevost Hagerty also testified that Prevost advocated solvent extraction for Application). removing oil from syrup rather than centrifugation, which he decided taught away from the Winsness/Cantrell invention. Id. at 130. On or around the same time, a similar rejection and response occurred in prosecution of the '516 patent's application. DX274; DX279; Hagerty – Direct at 1023-28.

On December 22, 2008, the examiner issued a final rejection in the '858 patent's application. PTX2059 at 112. In response ("'858 Final Rejection Response"), Hagerty again distinguished prior art, including Prevost. However, this time, in addition to his previous arguments, the response stated, "Applicants have discovered that its claimed processes frees a portion of the bound oil as a result of evaporating the thin stillage to remove water and form a concentrated byproduct. Removing a portion of the bound water

breaks the emulsion allowing mechanical processing to further separate and recover the oil." PTX2059 at 101. This language tracks Barlage's conclusion on his June 2003 test report: "Something in the evaporation process allows for the product to breakdown to a level where the oil can be taken out easily." Compare PTX2059 at 101 ('858 Final Rejection Response) to DX792 at GCS(PRIV)001620 (Barlage test results conclusion). Hagerty was aware of the Barlage test results in approximately September 2008, which Winsness had characterized as testing history. DX792. Hagerty was also aware that Winsness claimed that at the bench-top test in June 2003, "We poured 'syrup' into a continuous disk-stack centrifuge a[nd] were able to separate the oil from the water cleanly." Id. at GCS(PRIV)001605. Hagerty denied that he used Barlage's conclusion or that it meant that much to the patentability of the invention and claimed that it was merely a "theory." Hagerty – Direct at 1029; Hagerty – Cross at 1269. This testimony was unconvincing in light of the fact that this language was presented to the patent office as a "discovery" not as a theory. DX279. On examination by his own attorney, Hagerty tried to explain that it was later proven true at the May 2004 test, but there is nothing in the record to evidence that the inventors came to this conclusion at the later date.

It seems that Winsness was Hagerty's primary contact with respect to responses to the PTO. Hagerty – Direct at 1003. When Cantrell and Winsness were asked about who worked with Hagerty on responses and or correspondence with the PTO, Cantrell claimed it was Winsness and specifically denied seeing many of the documents upon which his name appeared and denied even keeping up with the patent prosecution process. Cantrell – Direct at 197, 304, 312, 361, 371; Cantrell – Cross at 406. Even if the Court could consider Cantrell a reliable witness, he continually undermined his

credibility when he disavowed documents upon which he was copied that related directly to the patent applications, as well as documents that were sent to the patent attorneys with his name on them; claimed that documents he wrote were wrong; claimed he never would have said something he was purported to have said; or blamed clear statements on his poor writing skills. See, e.g., Cantrell – Direct at 125-27 (disavowing anything to do with preparation of DX792, a memorandum regarding the invention to Dorisio); id. at 205 (claiming that DX109, a memorandum he prepared dated June 11, 2004, had misstatements about the connection between the meat industry and the ethanol industry); 206-07 (disavowing quoted statements in an article dated August 2005); id. at 209 (claiming that he never read the provisional application filed by Dorisio on his behalf); id. at 211 (claiming a VDT executive summary dated January 17, 2005, DX158, which indicates him as an author, was "written wrong in what I wrote"); id. at 219-21 (disavowing any knowledge of Dorisio's patent clearance opinion, DX788).

At times, Winsness seemed to confirm that he was the primary contact with the attorneys, although he testified that Cantrell engaged Dorisio and collaborated on some correspondence. Winsness Direct at 543. But, on direct examination with respect to various pieces of written evidence he vaguely stated that the attorneys could have gotten the information from someone else, maybe Cantrell for example. Winsness - Direct at 581-83. In addition, Winsness refused to acknowledge on direct examination that he wrote key documents that Dorisio and Hagerty relied upon to draft and defend the patents or even that he discussed them with the lawyers during the drafting process. See, e.g., Winsness – Direct at 243 (discussing DX792); Winsness – Direct at 546-47 (discussing DX158); Winsness – Direct at 580-83 (discussing DX284); Winsness – Direct at 604

(discussing DX621 and stating, "I don't know where [O'Brien] got that information from"). Winsness' prevarications and evasions severely undermined his credibility.

In total, the Court considered Cantrell's apparent complete avoidance and ignorance of the process and Winsness' protestations evidence of the inventors' complete lack of regard for their duty to the patent office. The Court cannot expect Winsness and Cantrell to understand the nuances of patent prosecution; however, it is reasonable to expect them to communicate with the person they have hired to represent their interests to the PTO to ensure that the communications are factually accurate. The only reasonable inference is that Cantrell and Winsness acted to deceive the PTO about the facts of the discovery process of the invention. "No one paid attention" cannot and does equal candor by any inferential stretch.

In April 2009, the PTO issued a notice of allowance for the application that became the '858 patent; Hagerty paid the issue fee in May 2009. MDN 1589, Stipulations ¶¶ 9 & 10.

In May 2009, CleanTech needed capital and Raymon Bean ("Bean"), a potential investor, was contemplating a significant investment. Winsness – Direct at 564-65; Hagerty – Direct at 1035-36. During the due diligence process, Bean's attorney, Scott Bialecki ("Bialecki"), requested information from Hagerty regarding the defendability of the Cantrell/Winsness patents. Hagerty – Direct at 1046. Specifically, Bialecki requested the following information: (1) "any pre-filing disclosures of the inventions;" (2) "any . . . pre-filing offers for sale of these inventions by the inventors or others;" (3) "any information relating to any inventorship-related issues;" (4) "any information potentially affecting the validity and/or enforceability" of the applications, and (5) "all third party correspondence"

relating to these applications." DX 694. Upon receiving this list, Hagerty asked Cantrell and Winsness, as well as others at CleanTech, for responsive information or documents; Cantrell and Winsness denied having any relevant information or documents. Hagerty – Direct at 1047-48. Hagerty responded to Bialecki on May 22, 2009, stating, "To the best of our knowledge, there has been no pre-filing disclosure and/or offers for sale of the subject matter as it relates to the above applications." DX 695. He further represented that there were "no known inventorship issues" or "information that affects validity and/or enforcement" of the patents. *Id.*

On May 29, 2009, Bean's attorney talked with Cantrell and Winsness on the telephone to discuss the patents. DX 688. Hagerty did not participate in the call. Hagerty – Direct at 1057. Apparently, not all of Bialecki's questions were answered. On May 30, 2009, Winsness emailed Cantrell, Barlage and Whit Davis ("Davis"), also of CleanTech, with action items to address Bean's attorney's concerns. DX688. Among other action items, Cantrell and Winsness were to look through their files for evidence that VDT had released its invention rights to Cantrell/Winsness and to look for a non-disclosure agreement between VDT and Agri-Energy. *Id*.

In 2010, a signed version of the July 31, 2003, letter to Agri-Energy was in Cantrell's home files and an unsigned version was on Winsness' computer; but neither were turned over to Bean's attorney or Hagerty in May or June of 2009 during the Bean due diligence process. It is apparent that Cantrell never looked at any of his files at this time. It is questionable as to whether or not Winsness ever looked either because in 2010, he sent an electronic version of the July 31, 2003, offer letter to Agri-Energy to Cantrell. DX659; Winsness – Direct at 612. The letter was clearly relevant and

responsive to the inquiry from Bean's attorney. After repeated inquiries from Hagerty about responsive documents and, what Hagerty testified was the "pretty clear" intent behind the request, Hagerty – Direct at 952, 1046, the only reasonable inference is that Cantrell and Winsness purposefully withheld the information about their dealings with Agri-Energy because they knew they had made an offer for sale that could kill both the deal with Bean and their opportunity to obtain a patent.

As previously mentioned, Hagerty testified that he learned about some of the inventor's dealings with Agri-Energy around the September 2008 timeframe from Winsness; in particular, the Barlage bench test. Hagerty – Direct at 1038-47. In fact, Winsness had described the bench test as a successful separation of oil from syrup, which "led [the inventors] to believe the process would work on a commercial scale." DX792 at GCS(PRIV)001605. At trial, Hagerty seemed perplexed that Bialecki's request should have covered the 2003 testing because Hagerty had determined it was irrelevant to patentability. Hagerty – Direct at 1048. This conclusion is problematic in light of the fact that the written information Hagerty received from Winsness about the 2003 bench test stated that it worked - oil was cleanly separated from syrup. DX792 at GCS(PRIV)001605. At trial, Winsness tried to deny that what he wrote was truthful, or that he expected Hagerty to rely upon the information. Winsness - Direct at 563-65. Winsness further claimed that it was "inaccurate" and that they must have discussed it at the time. Winsness – Direct at 576-77. Hagerty also tried to explain that this was not factual; his understanding of the test was different based on "data," which consisted of a conversation with Winsness. Hagerty – Direct at 1038-40, 1078-79; Hagerty – Cross at 1263-64, 1267. Winsness and Hagerty's testimony on this issue, which is critical to the

question of reduction to practice and/or ready for patenting, is belied by the fact that when he sent it to Hagerty, Winsness specifically corrected the mistake on page 12 of the disclosure and surely would have done so with the key discovery a few pages earlier if it were, in fact, "inaccurate." DX792 at GCS(PRIV)001591.

Hagerty also claimed that the 2004 testing at Agri-Energy was not disclosed to Bialecki for the same reason - it was not material to patentability. Hagerty – Direct at 1053. He specifically said that the inventors did not show the invention to Agri-Energy, they "tested it." *Id.* at 1048-50. The Court finds this to be a distinction without a difference. Like with Winsness and Cantrell, Hagerty's purposeful evasion of the plain meaning of Bialecki's request for any disclosure of the invention to a third party damaged his credibility.

On June 5, 2009, Hagerty withdrew the '858 patent application from issue and filed a new information disclosure statement. Stipulations ¶ 11. On the same day, Hagerty submitted a letter that stated, in part:

Sometime in May 2004, feasibility testing of a process and system for recovering oil from thin stillage was performed that included evaporating thin stillage to form a thin stillage concentrate having a moisture content greater than 30 and less than 90 percent by weight followed by centrifuging the thin stillage concentrate to separate the oil from the thin stillage concentrate. The recovered oil was subsequently sold. Following the feasibility testing, provisional patent application 60/602,050 was filed on August 17, 2004.

DX 284. See also Stipulations ¶ 12. This information had no relevance to prosecution of the '858 patent application. Hagerty – Direct at 1074. Rather, Hagerty testified that he filed this in the prosecution of all the then-pending applications to clear up what he called an inconsistency in the prior art cited to the PTO amongst the three related patent application families, the '858 patent family, the '037 patent family and the '425 application

family. Hagerty – Direct at 1060-62; Hagerty – Cross at 1284-85, 1284-91. The '425 application and its patents are not a part of this MDL and have to do with superheating. Hagerty – Direct at 1060-62; Hagerty – Cross at 1295. Hagerty also testified that he wanted to make sure this 2004 activity was before the examiner in the '858 patent file history, even though he determined it was immaterial to patentability in that patent family. Hagerty – Direct at 1063, 1074; Hagerty – Cross at 1285, 1296-97. The Court found Hagerty's testimony about this filing canned and evasive, particularly when he claimed the 2004 testing was irrelevant to the '858 patent family and was not "prior art;" it simply raises a question about why he would file it in the '858 patent family applications when he only intended to ensure that the three patent family cited consistent prior art. It is even more perplexing because Hagerty failed to disclose information at this time about the June and July 2003 Barlage testing, the Ethanol Systems Diagram, and the Barlage test report, which he had similarly determined were immaterial to patentability of the '858 patent family, but possibly relevant to the '425 application.

The '858 patent issued on October 13, 2009. Stipulations ¶ 14.

Hagerty filed the same letter regarding the 2004 feasibility testing with the PTO during prosecution of the '516 patent on June 10, 2009; during prosecution of the '517 patent on September 14, 2009; and during prosecution of the '484 patent on July 21, 2011. DX 279A ('516 Patent File History Excerpt), DX280A ('517 Patent File History Excerpt), DX289 ('484 Patent File History Excerpt).

E. THE INVENTORS HIRE CANTOR COLBURN LLC TO LITIGATE THE PATENTS

In or around September 2009, CleanTech hired litigation counsel through Hagerty's firm, Cantor Colburn LLC. O'Brien – Direct at 721. Hagerty was the managing

partner and testified that the retention agreement between the parties was based on a contingency fee, that CleanTech could elect to pay off at any time, and the potential for CleanTech to pay an outstanding balance with stock; the latter clause was never effectuated. Hagerty – Direct at 1088.

The initial lawsuits that led to this MDL were filed in and around February 2010. See, e.g., GS CleanTech Corp. v. Cardinal Ethanol, LLC, 1:10-cv-00180-LJM-DML (S.D. Ind. Feb. 11, 2010), Dkt. No. 1. At the outset of the litigation, Hagerty had conversations with the litigation team, which included Charles O'Brien ("O'Brien"), Michael Rye ("Rye") and Chad Dever ("Dever"), about obtaining documents and/or information filed and/or obtained through the litigation. Hagerty – Direct at 1098-99.

On February 12, 2010, the PTO issued a notice of allowance of the '516 patent. DX279. Hagerty paid the issue fee on March 2, 2010. *Id.*

Despite being asked to search for pre-filing relevant records by Hagerty and/or Bialeski in May 2009, on March 18, 2010, Winsness travelled to Cantrell's home to collect Cantrell's files. Winsness – Direct at 584-85; Stipulations ¶ 16. At trial, as if distancing himself, Winsness testified that he never looked at the documents, he just picked them up and handed them over to a secretary to be scanned. Winsness – Direct at 584-85. But, the parties stipulated that Winsness reviewed them on the day he picked them up and found an ink-signed original of a July 31, 2003, letter to Agri-Energy, which the parties have designated as "Q1", DX650; and an ink-signed original letter dated August 19, 2003, to Agri-Energy, which the parties have designated as "Q2," DX651. Stipulations ¶ 17. If it had not questioned Winsness' veracity on other issues, the Court could certainly conclude from this that Winsness has a propensity to evade the truth. In any event, the

two letters, Q1 and Q2, have a different letterhead than the electronic versions of the same letters that Cantrell emailed to Agri-Energy; specifically, the letter "D" in the VDT logo is open in Q1 and Q2, but closed in the electronic versions. Stipulations ¶ 23. The Q1 and Q2 letters had been in Cantrell's possession until Winsness obtained them in March 2010. Stipulations ¶ 21.

At trial, the parties presented expert testimony about whether or not Q1 and Q2 were printed and signed in 2003 or at some later time. *See*, *generally*, LaPorte Trial Testimony at 431-529; 1397-473. Cantrell also testified about the documents. Cantrell – Direct at 272-78. The Court finds the results of the experts' analyses inconclusive with respect to dating the Q1 and Q2 documents. What is clear, and in fact was stipulated, is that there are differences in the VDT logo on Q1 and Q2 versus electronic versions of those documents. This fact lends some additional support to the Court's conclusions regarding the poor credibility of Catnrell and the lackluster investigation performed by Cantor Colburn regarding the July 31 Proposal.

On March 24, 2010, someone in Winsness' employ scanned the letters and emailed full-color, .pdf copies to CleanTech's litigation counsel at Cantor Colburn LLC, O'Brien and Rye. Stipulations ¶ 18; Winsness Direct at 585. Attorneys Hagerty, Rye and O'Brien were not aware of the July 31, 2003, letter or any offer to Agri-Energy in 2003 prior to receiving Winsness' email with the scanned documents on or about March 24, 2010. Stipulations ¶ 19. It was on or around this date that Hagerty learned of the July 31, 2003, letter. Stipulations ¶ 20; Hagerty – Direct at 954, 1104. At trial, Hagerty dismissed the importance of the document and its relevance to the then-pending applications of the patents-in-suit. Hagerty – Direct at 1104-10 (explaining that on his first

review, he believed the letter did not disclose anything).

Even so, it appears that Cantor Colburn began researching the on-sale bar fairly quickly thereafter. Hagerty – Direct at 1111 (mentioning an on-sale bar memorandum prepared by an associate in the litigation department); O'Brien – Direct at 759 (agreeing that an on-sale bar memorandum was generated in May 2010). From March 2010 through mid-August 2010, Hagerty, Rye and O'Brien were working under the assumption that the July 31 letter, Q1, was delivered to Agri-Energy on or about that date. Stipulations ¶ 24.

In mid-May and early-June 2010, Winsness and Ed Carroll ("Carroll"), President of then GreenShift, had a series of meetings with a competitor, Solution Recovery Services, LLC ("SRS"), to discuss a potential license for the patents. Winsness – Direct at 600-01; Czartoski Trial Video Testimony. Although the circumstances surrounding the meetings sounded odd, it was clear that at the time of the meetings, SRS believed the patents to be invalid due to an offer to sell a system. Winsness – Direct at 600-01; Czartoski Trial Video Testimony. Specifically, SRS disclosed to Winsness and Carroll that it had an opinion from an attorney that concluded that the '858 patent was invalid. Czartoski Trial Video Testimony. Winsness concluded that SRS may have talked with Agri-Energy because it was the only company they had talked with about the technology. Winsness – Direct at 601-02 (stating that it "led me to believe that maybe they were in discussions with Agri-Energy because we had nobody else that we, to my knowledge, talked to besides Agri-Energy").

In June 2010, shortly after meetings with SRS, Winsness travelled to Laverne, Minnesota and met with Darryl Nelson ("Nelson") and others at Argi-Energy. Winsness –

Direct at 602-03; Winsness - Cross at 689-90. Winsness claims he confronted Agri-Energy employees about why they were dealing with SRS. Winsness – Direct at 602-03. Nelson testified that he was surprised by Winsness' visit. Nelson Trial Video Testimony. Further, during the visit, although Winsness denied it, Nelson claimed that Winsness offered Agri-Energy a royalty-free license in exchange for Agri-Energy's willingness to admit that the pending patents were valid. Nelson Trial Video Testimony. Winsness testified that a royalty-free system was offered to Agri-Energy in 2004 and some kind of early adopter advantage was also offered at some unspecified time, but Agri-Energy declined the offers. Winsness - Direct at 602-03; Winsness - Cross at 689-90. Winsness' visit to Agri-Energy soon after his meeting with SRS evidence his concern that Agri-Energy had adverse information. Winsness testified that he wanted to "clear the air" by having Agri-Energy talk with his lawyers because "it was beyond [his] ability." Winsness – Direct at 603. Winsness' visit left Nelson with a negative impression, which supports an inference that Winsness tried to coerce or threaten Agri-Energy regarding the interaction between the inventors and Agri-Energy in 2003.

Meanwhile, between March and May 2010, Hagerty discussed the letter with the litigation team, but not with the inventors, to determine a strategy to address the letter. Hagerty – Direct at 1115-17; O'Brien – Direct at 745. In mid-May 2010, Hagerty sent O'Brien and Rye drafts of an information disclosure statement in which he dismissed the July 31, 2003, letter as irrelevant because it related to an apparatus, not a method. DX612; DX613; Hagerty – Direct at 120-21. Hagerty's versions were focused on the elements of a case, *Plumtree Software, Inc. v. Datamize, LLC*, 473 F.3d 1152 (Fed. Cir. 2006), which had been discussed in an on-sale bar memo prepared by Dever. Hagerty

Direct at 1122. Hagerty testified that, after he presented his option, the "litigation group thought there was a different way to present it; and that's when Mr. O'Brien got involved."
 Hagerty – Direct at 1127. In fact, at this point, Hagerty relied upon O'Brien and the litigation team to investigate the circumstances surrounding the letter and to draft a submission to the PTO. Hagerty – Direct at 1110-18. Hagerty's version was never filed.

From mid-May to late July 2010, O'Brien talked with the inventors and others at CleanTech to gather facts. O'Brien – Direct at 760-61. It appears that the lawyers did not attempt to get information from Agri-Energy until July 2010. O'Brien – Direct at 761.

On July 27, 2010, Rye sent a letter to Agri-Energy's counsel. Stipulations ¶ 25; DX252. The letter states, in relevant part:

. . . I have spoken with my client and we have determined that GreenShift is able to provide a release of liability for any prior use of an extraction system and will indemnify Agri Energy against any liability for cooperating with GreenShift and for clarifying the use of the corn oil system in 2004.

We would like to obtain a statement from Mr. Sommers confirming and clarifying only the following matters:

With respect to the system VDT offered Agri Energy the opportunity to operate in July 2003, we would like confirmation that VDT did not provide any drawings or diagrams of the proposed system in 2003 and VDT did not describe a specific system or method for recovering the corn oil in 2003 except that Mr. Cantrell stated that system included a disc stack centrifuge. Further, the proposed use of the system was intended to be experimental and confidential, and Agri Energy understood that it had, after the ninety-day trial period, the option to then purchase the system.

As we discussed with respect to the use of the system in 2004, Agri Energy understood the use and purpose of the VDT corn oil recovery system at Agri Energy was experimental and confidential. Specifically, Agri Energy understood VDT had not proved that its corn oil method and system worked, needed to test it and Agri Energy had a history of allowing others to use its facility to experiment with processes related to ethanol production. When Agri Energy agreed to allow VDT to try the extraction method and system, it understood the method and system had not been tested an ethanol production facility and there was a need for public testing to determine

whether the concept worked. During the experimental period, Agri Energy understood it had a secrecy obligation to VDT and regularly kept and communicated the results of the oil extraction tests to VDT. VDT explained how to perform the corn oil extraction method, monitored the progress and made recommendations to tweak and improve the use of the system. The VDT corn oil extraction system was in operation at the Agri Energy facility for approximately two months in 2004. Agri Energy did not buy the system from VDT and, although Agri Energy sold the corn oil recovered by the system with the method, Agri Energy understood the purpose of the use of the system to have been for experimental purposes.

Of course, if Mr. Sommers believes any of the above is inaccurate or requires further clarification, we would welcome a discussion.

DX252.

O'Brien claimed that they presumed Agri-Energy had no issue with the statement in the letter because they never responded and it comported with conversations they had with Agri-Energy's lawyer. O'Brien — Direct at 807-08, 873-74, 884. But, Sommers testified that Agri-Energy did not accept the offer from Rye/GreenShift because the statements were not true. Sommers Trial Video Testimony. Even if Agri-Energy had accepted the offer, it appears to this Court that the offer was an empty promise because the only liability for which this letter offered a release was prior use of the system/method; there is no mention of any ongoing license or indemnification. In any event, it is striking that Rye failed to request that Agri-Energy provide any documents it might have in its possession that would shed light on the interactions between the company and his client in the relevant time frame. Further, two attempts at contact within a year is inadequate in light of the uncertainty surrounding the July 31 Proposal at this point in time, which raises an inference that counsel was avoiding the truth.

On August 12, 2010, Winsness emailed Cantrell an electronic version of the unsigned July 31, 2003, offer letter to Agri-Energy and an electronic copy of the Barlage

test results. DX 659.

Litigation counsel O'Brien prepared a first draft of a Supplemental Response for filing in the then-pending applications for the '516 and '517 patents. Stipulations ¶ 30. O'Brien's first draft stated that the July 31 Proposal was not material to the pending patent application because it was not first delivered to Agri-Energy within one year of the August 17, 2003, date. *Id.* It further stated that the letter was not prior art. *Id.* A draft circulated on August 12, 2010, discussed the bench testing performed in June 2003 and argued that the offer letter was not a binding contract. DX 618. On or about August 16, 2010, counsel provided their assessment to CleanTech regarding the inventors' interactions with Agri-Energy in the June through August 2003 time frame. DX 620. Up to and including August 20, 2010, O'Brien made urther drafts, some even more detailed than the one circulated on August 12, 2010. DX619, DX621, DX622, DX624. These drafts set out such arguments such as (1) why the offer fit the experimental use exception; (2) why the invention was not ready for patenting; and (3) why the letter was not a "sales" offer. See, e.g., DX618; DX619; DX621; DX622; DX624; O'Brien - Direct at 761-63. At least with respect to the majority of these drafts, the attorneys thought that it was important to disclose the letter to the PTO because it was dated before the critical date, contained a price, and was addressed to a third party. O'Brien – Direct at 758.

Then, in late August or early September, O'Brien received a call from Carroll reporting that Cantrell recalled that he hand-delivered a signed copy of the July 31, 2003, offer letter to Agri-Energy when he attended the Board Meeting on August 18, 2003; Cantrell claimed this was the first time Agri-Energy saw the letter. O'Brien – Direct at 796. O'Brien and Hagerty testified that they were skeptical that this was true because of

the timing of Cantrell's recollection, the date on the letter, and the convenient "August 18" date that would negate any worry about an on-sale bar. O'Brien – Direct at 796-99; Hagerty – Direct at 1143-44. The litigation team talked with Cantrell and Winsness about whether or not they had any corroboration that Cantrell's recollection was true. O'Brien – Direct at 799-800. Winsness testified that it was how Cantrell conducted business, Winsness – Direct at 610, and O'Brien took that as confirmation. O'Brien – Direct at 799-800.

Also, on or about September 9, 2010, Cantrell received credit card records reflecting his credit card transactions in August 2003. Stipulations ¶ 26. It took several weeks for the credit card company to deliver the copies of his credit card records from the time Cantrell requested them. *Id.* On or about September 13, 2010, Rye and O'Brien received Cantrell's credit card records. Stipulations ¶ 27. O'Brien claimed that these records helped corroborate that Cantrell was at Agri-Energy on August 18, 2003, and that he tested Cantrell on the telephone about it, but he never visited Cantrell in person or attempted to review Cantrell's or CleanTech's files himself. O'Brien – Direct at 800-801.

Other than the letter to Agri-Energy seeking confirmation of the purpose of its interactions with the inventors in July 2003, neither Hagerty, O'Brien nor Rye sought to obtain information regarding the delivery of the July 31, 2003, offer letter from Agri-Energy. It is clear that the Rye letter did not ask for a copy of the letter or any information regarding when it was received. Further, there were multiple document available to the litigation team that evidenced Cantrell was working with a team of people including Lauderbaugh; however, the attorneys failed to discover, or the inventors failed to disclose that fact, or both chose to ignore it, and no one obtained further corroboration.

Suspiciously absent from any submission to the Court is testimony from any witness that Cantrell's recollection of hand delivery of a signed letter dated July 31, 2003, was true. The relative ease with which Cantor Colburn could have obtained additional information reveals the insincerity of any professed concern that the lawyers had about the veracity of Cantrell's claim that August 18, 2003, was the first time Agri-Energy received the July 31 Proposal. In other words, it is evident that they rather easily suspended any disbelief in favor of keeping the Barlage test results, the Ethanol System Diagram and other VDT/CleanTech interactions with Agri-Energy from the PTO.

On October 29, 2010, the Court held an Initial Pretrial Conference in the MDL. MDN 49. On November 3, 2010, this Court issued its Case Management Order setting relevant deadlines, including a *Markman* hearing on April 25, 2011; and a preliminary injunction hearing on June 13, 2011. MDN 50; Stipulations ¶28. CleanTech's litigation and/or patent prosecution lawyers still did nothing to secure information from Agri-Energy, Alpha-Laval or Lauderbaugh about the inventors' interactions with Agri-Energy in the summer months of 2003. O'Brien testified that they could not have subpoenaed Agri-Energy, for example, because no Rule 26(f) conference occurred until February 2011. O'Brien – Direct at 804-05. However, with the Rule 16 initial conference behind them, and even in the face of Defendants' claims that discovery should not commence until a Rule 26(f) conference was held, this excuse rings hollow.

F. FIRST CANTRELL DECLARATION

In early November 2010, O'Brien drafted a "Declaration of Cantrell" for review and discussion with Cantrell, Rye and Hagerty. Cantrell signed the declaration on November 5, 2010 ("Cantrell's First Declaration"). Stipulations ¶ 29. Winsness testified that he

reviewed and discussed with the attorneys that the declaration would be filed. Winsness

- Direct at 614. Cantrell's First Declaration states, in relevant part:

* * *

4. In 2003, I was the Executive Vice president of Vortex Dehydration Technology, LLC ("Vortex").

* * *

- 6. Attached hereto as Exhibit A is a true and accurate copy of a letter dated July 31, 2003 (the "Letter") to Agri-Energy, LLC that was signed by me in my capacity as Executive Vice President of Vortex.
- 7. Attached hereto as Exhibit B is a redacted copy of the relevant portion of my credit card statement for the relevant period in August 2003 (the "Statement").
- 8. On August 8, 2003, I booked a flight for August 17, 2003 from Atlanta International Airport (ATL) to Minneapolis St. Paul International Airport (MSP). The primary purpose of flying to Minnesota was to attend a face-to-face meeting with Agri-Energy's representatives on August 18, 2003. The Statement reflects that I booked this flight on August 8, 2003.
- 9. On August 17, 2003, I flew from Atlanta International Airport (ATL) to Minneapolis St. Paul International Airport (MSP). After landing on August 17, 2003 in Minnesota, I spent the night at the Country Inn & Suites, which is located in West Bloomington, Minnesota. The Statement reflects that I reserved a room at the Country Inn & Suites, with an arrival date of August 17, 2003.
- 10. On August 18, 2003, I drove approximately 200 miles from West Bloomington, Minnesota to Agri-Energy's facility in Luverne, Minnesota.
- 11. On August 18, 2003, I attended a face-to-face meeting with Agri-Energy's representatives. It was during that meeting on August 18, 2003 that I hand delivered the Letter to Agri-Energy's representatives. My hand delivery of the Letter at this meeting on August 18, 2003 was the first time that the Letter was shown to Agri-Energy. The Letter was never mailed to Agri Energy [sic].

* * *

13. On August 19, 2003, I prepared a letter dated August 19, 2003 to address the discussion that took place at the meeting the day before at Agri-Energy on August 18, 2003.

14. On August 19, 2003, after checking out of the Luverne Comfort Inn, I drove back to the Agri-Energy facility in Luverne, Minnesota. While at the Agri-Energy facility, I met again face-to-face with Agri-Energy's representatives at which time I hand delivered the letter dated August 19, 2003 to Agri-Energy's representatives.

* * *

17. I hereby further declare that all statements and representations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements and representations were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued therefrom.

DX104.

Cantrell's statements in paragraph 11 that he hand delivered the letter to Agri-Energy on August 19, 2003, and that this was the first time anyone at Agri-Energy saw the letter are false. Notwithstanding the extensive amount of third-party discovery that took place in this case, no signed copy of the letter dated July 31, 2003, that makes an offer to Agri-Energy has been produced, other than Q1, the one that was in Cantrell's files. Therefore, other than Cantrell's demonstrably false recollection and his testimony that it was his practice to hand deliver offer letters, there is no evidence that he did so with this letter. As previously discussed, Cantrell's testimony on any issue related to the relevant time period is not credible and the Court finds that he did not hand deliver the July 31, 2003, offer in this case. Even more importantly, Agri-Energy received an electronic, unsigned letter with the same content on August 1, 2003; therefore, Cantrell's statement that Agri-Energy first saw the July 31, 2003, offer letter on August 19, 2003, is patently false.

On November 9, 2010, Hagerty filed Cantrell's First Declaration and a

Supplemental Response with the PTO in the applications for the '516 and '517 patents. Stipulations ¶ 31. Hagerty made no changes to the documents before filing them; they were filed as drafted by O'Brien. Hagerty – Direct at 1150. A copy of Q1, the July 31, 2003, ink-signed original letter, was submitted with Cantrell's First Declaration. Stipulations ¶ 32. See also DX104. The Supplemental Response repeats the false statements in Cantrell's First Declaration: "Although the Letter is dated July 31, 2003, it was nonetheless first disclosed to Agri Energy [sic] on August 18, 2003 by David Cantrell hand delivering the Letter to Agri Energy's [sic] representatives during a face-to-face meeting that took place at Agri-Energy's facility in Luverne, Minnesota on August 18, 2003." DX 104. The Supplemental Response then reiterates paragraphs 9 through 14 and paragraph 16 from Cantrell's First Declaration. Id. The Supplemental Response closes stating, "As the Letter was not delivered to Agri-Energy prior to August 17, 2003, the Letter is not material to the above noted patent application because it is not prior art to the above noted patent application." Id.

On May 11, 2011, Hagerty filed the application that led to the '484 patent. DX288.

On July 21, 2011, Hagerty filed Cantrell's First Declaration with the PTO in that application. Stipulations ¶ 34.

Despite earlier intentions to disclose the whole story to the PTO, as evidenced by O'Brien's multiple drafts of an information disclosure statement; O'Brien, Hagerty and the inventors failed to mention in any of the pending applications any work performed at Agri-Energy earlier in the summer of 2003 or disclose the Ethanol System Diagram, even though it was dated July 22, 2003. DX298.

O'Brien waited until August 26, 2011, to issue a subpoena to Agri-Energy. O'Brien

Direct at 825; DX632. The response date was September 9, 2011. O'Brien – Direct at 826; DX632.

On August 30, 2011, the '516 and the '517 patents issued. Stipulations ¶ 35.

G. SECOND CANTRELL DECLARATION

On September 21, 2011, Defendants deposed Cantrell for the first time. O'Brien – Direct at 814. At the deposition, Defendants confronted Cantrell with a copy of his August 1, 2003, email to Agri-Energy with the July 31, 2003, letter attached to it. Cantrell – Direct at 351, 354. Initially, Cantrell claimed that Defendants fabricated the August 1, 2003, email. *Id.* at 354-55 (discussing Cantrell deposition testimony). At trial, Winsness too claimed it was "suspicious." Winsness – Direct at 616. And, O'Brien testified that he was skeptical of its veracity when he first saw the email, although he admitted there was nothing inherent in the email from which to conclude that it had not been sent on August 1, 2003. O'Brien – Direct at 814. These statements at trial only further eroded the credibility of both Winsness and O'Brien. Eventually, CleanTech's litigation counsel ended Cantrell's deposition early because Cantrell became ill. O'Brien – Cross at 892.

On September 21, 2011, Hagerty learned that Cantrell emailed the July 31 letter to Agri-Energy on August 1, 2003. Stipulations ¶ 36. During his initial deposition in April of 2013, Hagerty agreed that "it sent a chill up his spine" when he learned that the letter was actually sent on August 1, 2013. MDN 949-15, Hagerty Dep. at 213. At trial, Hagerty said he was "shocked" or "surprised" to learn of the email version. Hagerty – Direct at 1155; Hagerty – Cross at 1315. However, as previously discussed, the parties stipulated that during the March 2010 to mid-August 2010 time frame, the Cantor Colburn lawyers were working under the impression that the July 31, 2003, letter was sent on or near that

date. Stipulations ¶ 24. Further, at trial, Hagerty shrugged off the significance of the July 31, 2003, letter and asserted that he was never worried because it did not disclose anything or amount to an offer. Hagerty – Direct at 1104-10; Hagerty – Cross at 1315. The contrast in Hagerty's testimony regarding his reaction to the letter between the two time frames, when it was first discovered by Cantor Colburn in 2010, and when it was revealed in September 2011 that Cantrell had emailed it to Agri-Energy prior to the critical date, is troubling. If he had no concerns about it when he was under the impression in March of 2010 that it was sent on or around July 31, 2003, why was Hagerty getting chills up his spine in August 2011 when it was revealed that Cantrell had sent it in an email on August 1, 2003? The Court cannot believe it was because of the first Cantrell declaration because Hagerty was content to let it sit unaddressed in the prosecution of the '484 patent's application while O'Brien did an investigation, which lasted over seven months. The only plausible reason for Hagerty to be concerned at all is because the story he had presented the PTO was false.

Over the next approximately seven months, O'Brien testified that Cantrell was too ill to contact about anything, much less follow up with regarding the August 1, 2003, email. O'Brien – Cross at 893. O'Brien also claimed that he and the litigation team were busy responding to motions for summary judgment that had been filed in the MDL. O'Brien – Cross at 893-94. Further, O'Brien testified that at this point, no one at Cantor Colburn thought Cantrell's First Declaration was wrong. O'Brien – Direct at 815-16. He stated, "We needed to talk with Mr. Cantrell to understand what is this document? Is it, in fact - does he have some explanation for this to say this is just made up? We didn't know. So we didn't know. We wanted to talk with Mr. Cantrell." O'Brien – Direct at 816. O'Brien

had no plausible or reasonable explanation for why it was imperative to talk with Cantrell alone about the email before taking some action to prepare an information disclosure statement to the PTO about the false information in Cantrell's First Declaration. O'Brien claimed they talked with Winsness, but "[h]e didn't know either." O'Brien – Direct at 816.

Hagerty never followed up with anyone; he claimed litigation counsel was now handling the "investigation." Hagerty – Direct at 1157. In effect, Hagerty had relinquished control over the prosecution back in May 2010 when O'Brien had a better idea and started to draft responses to the PTO regarding the July 31, 2003, offer letter. Other than the subpoena issued in August, no one from CleanTech or its counsel attempted to contact Agri-Energy between September 2011 and April 2012. Further, there is no evidence that Winsness or Lauderbaugh were asked to comb their records for the August 1, 2003, email on which they were copied. Most disturbing is that, during this period, neither litigation counsel nor Hagerty did anything to alert the PTO that Cantrell's First Declaration was false or that other testing activity had taken place at Agri-Energy prior to the August 1, 2003, email.

On December 13, 2011, the PTO issued an office action in the application for the '484 patent. DX 704; Hagerty – Direct at 1165. Under the rules, Hagerty had until May 2012 to respond. *Id.* at 1166. However, on February 10, 2012, Hagerty filed a response to that office action. DX278; Hagerty – Direct at 1166. Hagerty testified that he failed to include anything in this response to correct Cantrell's First Declaration because O'Brien had not completed the "investigation," which entailed speaking with Cantrell "to find out exactly what happened." Hagerty – Direct at 1165-68. Hagerty made no recommendation as to how to perform the investigation, he left it completely up to the

litigation team. *Id.* at 1168-69. Hagerty also asserted that he did not wait for the investigation to conclude to file a response to the office action because he usually responds to office actions within three months instead of waiting to closer to the deadline. *Id.* at 1170. Hagerty's lack of urgency and failure to engage in his own investigation raises questions about his ability to separate his responsibility to be candid with the PTO and his perceived responsibility to Cantor Colburn's litigation team.

Before April 5, 2012, Rye and O'Brien had communications with Cantrell about scheduling his second deposition. Stipulations ¶ 37. On or about that date, O'Brien met with Cantrell to prepare him for the deposition. Stipulations ¶ 38. Defendants deposed Cantrell a second time on April 10, 2012. O' Brien – Direct at 827. It was unclear from the testimony at trial whether or not O'Brien even discussed the August 1, 2003, email with Cantrell in April when O'Brien prepped Cantrell for the deposition. Cantrell – Direct at 357; O'Brien – Cross at 894. O'Brien claimed that in April, they might have talked with Cantrell and could now "kind of think this through." O'Brien – Cross at 865. But, on cross examination, O'Brien stated that he was unsure what he talked with Cantrell about in April, but he knows he talked with Cantrell in July about the August 1, 2003, email. O'Brien – Cross at 894.

Perhaps the reason for the urgency in July was that on April 13, 2012, the PTO had issued a notice of allowance for the '484 patent and the fee was due on July 13, 2012. DX706; Stipulations ¶39. In any event, on or about July 9, 2012, apparently having now thought it through, O'Brien drafted a second declaration for Cantrell ("Cantrell's Second Declaration"). DX602 at 69; DX192; O'Brien – Direct at 837-40. O'Brien testified,

[W]e wanted to be very clear with the examiner and link the two. So the examiner gets this declaration and knows this refers back to the first

declaration from November of 2010. So the examiner can go, then, look at the first declaration, look at the second one, and it's clear, all right, now I know the letter went before the critical date.

O'Brien – Direct at 841. He explained that there was a lot of discussion about Defendants' invalidity contentions and pleadings regarding the July 31 letter being an offer for sale and "we wanted to link those two declarations together and make sure the examiner understood how you kind of link these documents together and what your [Defendants'] story is." *Id.* at 841. The litigation team gave Hagerty the declaration, "precritical date documents" he did not already have, and Defendants' contentions and pleadings that were not sealed. *Id.* at 842. O'Brien and Hagerty decided "to be very clear, very direct with the examiner" by filing a number of Defendants' documents with Cantrell's Second Declaration instead of a letter. O'Brien – Direct at 843; Hagerty – Direct at 1203-04. Many of the contentions and pleadings had significant information redacted. *See*, *generally*, DX707 & DX288.

On July 12, 2012, Hagerty withdrew the application from issue, filed Cantrell's Second Declaration, and filed the information disclosure statement comprised of some inventor documents and Defendants' contentions and pleadings. DX192; DX707; DX288; Stipulations ¶ 40. Cantrell's Second Declaration stated, in its entirety:

I, David F. Cantrell, declare and state:

- 1. Attached is an e-mail sent from my e-mail account on August 1, 2003 to Jay Sommers of Agri-Energy, LLC and copied to Mark Lauderbaugh of Trident Corporation, Gerald Winter of Agri-Energy, LLC and David Winsness, co-inventor of the present application ("the August 1st email" [sic]), which attached a version of a letter dated July 31, 2003 (the "July 31 Letter").
- 2. At the time that I signed a Declaration dated November 5, 2010 that was submitted to the United States Patent and Trademark Office in the following related cases: App. Serial Nos. 12/559,136, which issued

into US Patent 8,008,517 and 11/241,231, which issued into US Patent 8,008,516, I did not recall the August 1st email [sic].

- 3. The July 31 Letter attached to the August 1 email [sic] was unsigned.
- 4. I hereby further declare that all statements and representations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements and representations were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued therefrom.

DX192.

Despite O'Brien's claim that they wanted to be "clear," Cantrell's Second Declaration not only repeats false information, it also fails to distinctly point out and/or explain the false information previously provided to the examiner in Cantrell's First Declaration. In addition, the declaration creates the false impressions that Cantrell may not have sent the August 1, 2003, email and that the unsigned letter had less significance than the "signed" one he allegedly hand delivered later the same month. Further, Hagerty and/or the litigation attorneys, failed to provide any explanation with the declaration as had been done with Cantrell's First Declaration or as required by Rohm & Haas Co. v. Crystal Chemical Co., 722 F.3d 1556 (Fed. Cir. 1983) and Intellect Wireless, Inc. v. HTC Corp., 732 F.3d 1339 (Fed. Cir. 2013). Rather, Hagerty testified that he decided to provide selected, redacted filings from the MDL proceedings and three emails from 2003 that Defendants had produced in discovery and obtained from third parties because he was concerned about mischaracterizing any document. Hagerty – Direct at 1174, 1175 ("Just list the facts and then file in combination with the answers and counterclaims of all the defendants."), 1202, 1203-04. Again, no explanation for the 26 documents was

provided. DX707. In addition, no attempt to explain the significance of the arguments made in the documents or to explain the information contained in the redacted portions of the documents was made. When questioned about the propriety of providing the litigation documents rather than an explanation, Hagerty stated that no roadmap was required. Hagerty – Direct at 1239. Further, he felt compelled to provide the Defendants' story to the examiner and that such was proper under and required by the MPEP. See, e.g., Hagerty – Cross at 1314, 1319-30, 1328. In addition, Hagerty testified that he was unaware of the following documents prior to filing the July 12, 2012, information disclosure statement: DX797, Cantor Colburn's list of documents sent to Hagerty; DX101, Email from David Cantrell dated June 5, 2003, re: Agri-Energy - contact information; DX136, Email from David Winsness dated June 10, 2003, re: VDS – Agents; DX135, Agri-Energy Visitor Register, 12/24/03 – 3/30/05; DX108, Letter dated July 11, 2003, from VDT to Agri-Energy, re: VDS Oil Recovery System; DX107, Email chain from David Cantrell dated August 5, 2003, June 17, 2003, June 13, 2003, re: List of Ethanol Production Facilities. No one accepted responsibility for ensuring that Hagerty received all the documents from the litigation group. O'Brien – Direct at 853-54, 861 (stating that "there was no one person in charge"), 862 (admitting that he did not know whose fault it would be if Hagerty did not get relevant documents); Hagerty – Direct at 1098 (stating there was no formal procedure for requesting and/or receiving documents from the litigation team), 1157 (discussing how O'Brien did the investigation to substantiate Cantrell's hand-delivery story), 1167-69 (discussing how he relied on O'Brien to investigate the August 1, 2003, email), 1180 (professing no knowledge of DX108, a draft offer letter to Agri-Energy dated the day after the Barlage bench-top test at the company, and no knowledge of whose fault it would be

if he did not see the document), 1193 (stating, "All I know is that I requested documents that were coming out of the litigation periodically to have them sent to me so I could review them as to whether they need to be cited to the patent office."), 1196-97 (stating that he had no idea what other documents there might have been available).

Hagerty failed to answer in any cogent way Defendants' questions about why unredacted versions or the documents referenced in the litigation papers were withheld from the examiner or why he chose to provide an explanation of their relevance. Hagerty did claim that Defendants filed them under seal; therefore, he felt strongly that under the protective order in this Court, he was not allowed to file un-redacted copies with the PTO. Hagerty – Cross at 1339. The Court considers both the failure to explain the significance of the documents and the failure to provide the PTO with either an un-redacted version of the filed papers or the underlying documents themselves strong evidence of an intent to deceive. Much of the redacted information was confidential to CleanTech; therefore, as the holder of the privilege, it had the authority to waive the privilege and release the information to the PTO in an un-redacted form. Further, there is no record that CleanTech sought permission from this Court to unseal the selected documents so they could be filed with the PTO in an unadulterated form. It is this Court's view that Hagerty and the inventors had a duty to disclose the un-redacted versions and the actual documents referenced in the filings to the PTO because the best source of the information was the documents themselves rather than Defendants' arguments and allegations about them. Moreover, without the redacted information, there was no meaningful disclosure of some relevant information. Finally, it is not enough after Rohm & Haas to simply inundate the PTO with paper when the purpose of the filing is to correct a prior misrepresentation.

Such a correction requires (1) expressly advising the PTO of the existence of the misrepresentation, "stating specifically where it resides," *Rohm & Haas*, 722 F.2d at 1572; (2) if a factual misrepresentation, advise the PTO of the actual facts, "making it clear that further examination in light thereof may be required if any PTO action has been based on the misrepresentation," *id.*; and (3) upon the new factual record, establish patentability of the claimed subject matter. *Id.* Here, none of the requirements were met.

The '484 patent issued on October 9, 2012. DX288; Stipulations ¶ 41.

H. THE PATENTS-IN-SUIT AS ISSUED

Although dependent claims were at issue in this case, the Court sets forth the asserted independent claims of the patents to give context to the inequitable conduct discussion.

The asserted independent claims of the '858 patent family read:

1. A method of recovering oil from thin stillage, the method comprising, in sequence: evaporating the thin stillage to remove water and form a concentrated byproduct; and recovering oil from the concentrated byproduct by heating and mechanically processing the concentrated byproduct to separate the oil from the concentrated byproduct, wherein the concentrated byproduct has a moisture content of greater than 30% and less than 90% by weight.

8. A method of recovering oil from thin stillage, comprising, in sequence: evaporating the thin stillage to create a concentrate having a moisture content of greater than 30% by weight and less than about 90% by weight; and centrifuging the concentrate to recover oil.

10. A method of processing whole stillage, comprising: recovering thin stillage from the whole stillage, the thin stillage including oil and solids; concentrating the thin stillage including the solids to produce a thin stillage concentrate, wherein the thin stillage concentrate has a moisture content of greater than 30% and less than 90% by weight; and recovering oil from the

concentrate by a process consisting essentially of heating and mechanically processing the concentrate to separate the oil from the concentrate.

16. In a method for processing corn to produce ethanol and concentrated thin stillage, the improvement comprising the step of recovering a product consisting essentially of oil from the concentrated thin stillage by heating and mechanically processing the concentrated thin stillage to separate the oil from the concentrated thin stillage.

'858 Patent, col5 I.66 to col6 I.64.

The asserted independent claims of the '516 patent read:

1. A method of recovering oil from thin stillage; the method consisting essentially of, in sequence:

evaporating water from the thin stillage to form a thin stillage concentrate, wherein the thin stillage concentrate has a moisture content of greater than 30% and less than 90% by weight before the recovering step;

mechanically processing the thin stillage concentrate to separate oil from the thin stillage concentrate; and

recovering the separated oil.

* * *

7. A method of processing whole stillage, comprising, in sequence:

separating distiller wet grains and thin stillage from the whole stillage, the thin stillage including oil and solids;

concentrating the thin stillage including the solids to form a concentrate having a moisture content of greater than 30% and less than 90% by weight; and

disc [sic] stack centrifuging oil from the thin stillage concentrate to form a substantially oil free concentrate.

'516 Patent, col6, I.11 to col 6, I52.

The asserted independent claim of the '517 patent reads:

1. A method of recovering oil from thin stillage, comprising:

evaporating the thin stillage to create a concentrate having a moisture content of greater than 15% by weight and less than about 90% by weight; and centrifuging the concentrate to recover oil.

'517 Patent, col 6, Il32-37.

The asserted independent claims of the '484 patent read:

1. A method of recovering oil from thin stillage; the method consisting essentially of, in sequence:

evaporating water from the thin stillage to form a thin stillage concentrate, wherein the thin stillage concentrate has a moisture content of greater than 30% and less than 90% by weight before recovering step;

mechanically processing the thin stillage concentrate to separate oil from the thin stillage concentrate;

recovering separated oil; and

drying the thin stillage concentrate to reduce the moisture content in the thin stillage concentrate.

* * *

8. A method of processing whole stillage, comprising, in sequence:

separating distiller wet grains and thin stillage from the whole stillage, the thin stillage including oil and solids;

concentrating the thin stillage including the solids to form a thin stillage concentrate having a moisture content of greater than 30% and less than 90% by weight;

disc [sic] stack centrifuging oil from the thin stillage concentrate to form a substantially oil free concentrate; and

drying the thin stillage concentrate to reduce the moisture content in the thin stillage concentrate.

* * *

16. A method of recovering oil from thin stillage, comprising, in sequence:

evaporating the thin stillage to create a thin stillage concentrate having a moisture content of greater than 30% by weight and less than about 90% by

weight;

centrifuging the thin stillage concentrate to recover oil; and

drying the thin stillage concentrate to reduce a moisture content in the thin stillage concentrate.

* * *

19. A method of recovering oil from thin stillage, the method comprising, in sequence:

evaporating the thin stillage to remove water and form a concentrated by product, wherein the concentrated byproduct has a moisture content of greater than 30% and less than 90% by weight;

recovering oil from the concentrated byproduct by heating and mechanically processing the byproduct to separate the oil from the concentrated byproduct; and

drying the concentrated byproduct to reduce the moisture content in the concentrated byproduct.

* * *

30. A method of recovering oil from thin stillage; the method comprising

evaporating water from the thin stillage to form a thin stillage concentrate, wherein the thin stillage concentrate has a moisture content of greater than 30% and less than 90% by weight;

mechanically processing the thin stillage concentrate to separate oil from the thin stillage concentrate; and

recovering the separated oil.

'484 Patent, col6, I. 9 to col8, I.37.

In its claim construction orders, the Court construed the claims as follows:

Claim Term	Construction
"concentrate" / "concentrated byproduct" / "concentrated thin stillage"	"syrup containing water, oil and solids resulting from the concentrating or evaporating process"
"mechanically processing"	"to subject to a mechanical device (or devices) to effect a particular result"
"heating and mechanically processing the	
concentrate/concentrated	subjected to heat and a mechanical device (or

byproduct/concentrated thin stillage to separate the oil from the concentrate/concentrated	devices) to extract a product that is substantially (meaning largely or mostly) oil from the Concentrate Term (as construed
byproduct/concentrated thin stillage"	above)"
"centrifuging the concentrate to recover oil"	"processing the concentrate (as set forth above) with a centrifuge to separate the oil from the concentrate so that the oil stream coming out of the centrifuge is substantially (meaning largely or mostly) oil"
"substantially oil free concentrate"	"the syrup exiting the centrifuge is largely or mostly oil free compared to the incoming thin stillage"

II. CONCLUSIONS OF LAW

The standard for inequitable conduct was enunciated by the Federal Circuit Court of Appeals in Therasense, Inc. v. Becton Dickinson & Co., 649 F.3d 1276, 1287-93 (Fed. Cir. 2011) (en banc). In the instant case, Defendants allege that CleanTech withheld certain material references from the PTO. Therefore, Defendants must prove by clear and convincing evidence two elements: (1) specific intent to deceive the PTO and (2) "but for" materiality of the references allegedly withheld. *Id.* at 1290. Stated another way, Defendants must prove "that the applicant made a deliberate decision to withhold a known material reference." Id. (quoting Molins PLC v. Textron, 48 F.3d 1172, 1181 (Fed. Cir. 1995) (emphasis added by *Therasense* Court)). However, "[p]roving that the applicant knew of a reference, should have known of its materiality, and decided not to submit it to the PTO does not prove intent to deceive." Id. (citing Star Sci. Inc. v. R.J. Reynolds Tobacco Co., 537 F.3d 1357, 1366 (Fed. Cir. 2008)). Rather, "the specific intent to deceive must be 'the single most reasonable inference drawn from the evidence." Id. (quoting Star Sci., 537 F.3d at 1366). "Indeed, the evidence 'must be sufficient to require a finding of deceitful intent in the light of all the circumstances." Id. (quoting Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 873 (Fed. Cir. 1988) (emphasis added by Therasense Court)).

Materiality is a separate and distinct inquiry. *Id.* (citing *Hoffmann-La Roche, Inc. v. Promega Corp.*, 323 F.3d 1354, 1359 (Fed. Cir. 2003)). To assess materiality, "the [C]ourt must determine whether the PTO would have allowed the claim if it had been aware of the undisclosed reference." *Id.* at 1291. In making this determination, the Court applies "the preponderance of the evidence standard and give[s] claims their broadest reasonable construction." *Id.* at 1291-92 (citing Manual of Patent Examining Procedure ("MPEP") §§ 706, 2111 (8th ed. Rev. 8, July 2010)). Further, if a claim is invalidated based on a deliberately withheld reference, the reference is necessarily material. *See id.* at 1292.

There is an exception to the "but for" materiality requirement when the patentee engages in affirmative acts of egregious misconduct. See id. at 1292. The filing of an unmistakably false affidavit, for example, is considered egregious misconduct that supports a finding of materiality because "a patentee is unlikely to go to great lengths to deceive the PTO with a falsehood unless it believes that the falsehood will affect issuance of the patent." Id. (citing Rohm & Haas Co. v. Crystal Chem. Co., 722 F.2d 1556, 1571 (Fed. Cir. 1983), and Hazel-Atlas Glass Co. v. Hartford-Empire Co., 322 U.S. 238, 247 (1944), overruled on other grounds by Standard Oil Co. v. United States, 429 U.S. 17 (1976)). Under Rohm & Haas, if "an applicant files a false declaration, [the Federal Circuit] requires that the applicant 'expressly advise the PTO of [the misrepresentation's] existence, stating specifically where it resides." Intellect Wireless, Inc. v. HTC Corp., 732 F.3d 1339, 1343 (Fed. Cir. 2013) (quoting Rohm & Haas, 722 F.2d at 1572)). The Intellect

Wireless court affirmed that the correction must be open and do more than provide accurate facts; rather the corrective submission must call the examiner's attention "to the untrue or misleading assertions sought to be overcome." *Id.* (quoting *Rohm & Haas*, 722 F.2d at 1572)).

Defendants argue that multiple pre-critical date documents, including, but not limited to, the Ethanol System Diagram, DX112; the June 29, 2003, email from Cantrell to Agri-Energy outlining the process for oil separation using a centrifuge, DX111; the August 19, 2003, email from Winsness to VDT shareholders describing the July 31, 2003, letter and meeting with Agri-Energy as a "first sale," DX144;" Winsness' February 2004 email that outlined the parameters under which the method would work, DX147; and the Barlage test results, DX133; because, taken together, they evidence a pre-critical date offer for sale under Pfaff v. Wells Electronics, Inc., 525 U.S. 55, 67 (1998). In particular, these documents compel a finding of an offer because the July 31, 2003, letter offered a system at a set price; and drawings and other descriptions existed that would allow one of ordinary skill in the art to make or practice the invention. Further, Defendants assert that all of the inventors' testimony that reduction to practice did not occur until May 2004 is contradicted by contemporaneous documents that describe the Barlage bench-top testing in June 2003 as a success and the offer to Agri-Energy dated July 31, 2003, and sent on August 1, 2003, as an offer for sale. Because the inventors knew this critical information and allowed Hagerty to file the feasibility testing letter during prosecution of the '858 patent, but not tell the whole story about their 2003 successes and the offer, they intended to deceive the PTO. With respect to the '516, the '517 and the '484 patents, the inventors allowed Hagerty to file a false affidavit notwithstanding their knowledge that Barlage had practiced the method in June 2003 and they had made an offer to sell the method to Agri-Energy in July or early August of 2003. Finally, with respect to the '484 patent, when they had an opportunity to clean up the record during prosecution of the '484 patent, rather than following the clear dictates of *Rohm & Haas* and *Intellect Wireless*, the attorneys chose a path of obfuscation and offered diaphanous excuses by filing Cantrell's Second Declaration and an information disclosure statement that was no more than a dump of incomplete accusations without the supporting documents. All of this, according to Defendants, is clear and convincing evidence of an intent to deceive.

CleanTech contends that Defendants have failed to prove both materiality and intent to deceive. Specifically, at the time of patenting, neither the inventors nor the attorneys believed that the invention had been reduced to practice until May 2004. Therefore, the feasibility testing letter was accurate and the July 31 Proposal was not an offer for sale under *Pfaff*. Similarly, Cleantech argues there was no intent to deceive the PTO because everyone always believed that the July 31, 2003, letter was an offer to perform a test and that the May 2004 test was the first reduction to practice since it was the first time that oil was sold. CleanTech relies on Cantrell's email to his "team" after the May 2004 test, DX114, as evidence that this test was the "eureka" moment. CleanTech further relies on the Barlage test report, DX133 and DX792, as evidence that at that point, the inventors still did not know if they could remove oil from syrup in an ethanol plant because of clogging in the centrifuge. CleanTech compares Barlage's results to the Wright brother's discovery that their plane could lift two inches above the ground, but they did not know at that time whether or not it would fly. CleanTech dismisses the other contemporaneous evidence regarding testing done in 2003 and the July 31 letter as

puffery. CleanTech also asserts that the Court must believe Winsness and Cantrell when they testified that they were desperate to get a centrifuge to perform a test at Agri-Energy. In the final analysis under *Therasense*, CleanTech contends, the single most reasonable inference must be that neither the inventors nor the attorneys intended to deceive the patent office because they reasonably considered the reduction to practice to have occurred in May or June 2004 and they provided all of Defendants' arguments to the contrary to the PTO.

In its Order on Cross Motions for Summary Judgment ("Summary Judgment Order"), the Court concluded that there was no question of material fact that the contemporaneous documents written by the inventors or drawn up at the request of the inventors evidenced that the July 31, 2003, letter that was emailed to Agri-Energy on August 1, 2003, was an offer for sale and that the invention was ready for patenting by the time the letter was sent. MDN 1351 at 164-75; MDN 1359 (incorporating claim 30 of the '484 patent into the analysis). After hearing the testimony of the inventors and the attorneys at the bench trial, the Court confirms its conclusion that those documents evidence both elements of the on-sale bar. Namely, before the critical date the invention in the '858 patent family was the subject of a commercial offer for sale; and the '858 family invention was ready for patenting. The Court adopts herein by reference the findings of fact and conclusions of law in the Summary Judgment Order, and it's Order on Motion for Clarification, Master Docket No. 1351, at 164 to 175, and Master Docket No. 1359. Further evidence at trial only buttresses the Court's earlier conclusion, particularly with respect to the ready for patenting element of the on-sale bar. Specifically, Winsness' discovery story, DX792, clearly evidenced that in July 2004, when he first wrote the

document, he believed that they had reduced the method to practice in July 2003 when Barlage performed the bench-top test. If it had not been a success, the inventors would not have started drafting an offer letter to Agri-Energy the very next day. See, e.g., DX107. Further, if his enthusiasm about that test had been a "mistake," as Hagerty and Winsness testified at trial, Winsness would have corrected it in 2008 when he sent the document to Hagerty because he corrected other important information with respect to the Barlage test report at that time. That Winsness believed the invention had been reduced to practice, or that they had drawings and/or other descriptions at the time for one of ordinary skill in the art to practice the invention, is only confirmed by Winsness' earlier email to Cantrell in February 2004 in which he lays out the parameters under which the invention would work. DX147. It was clear from the testimony at trial that Winsness was the technically-savvy member of the invention team; therefore, his testimony that in this email he was looking to Cantrell to confirm the accuracy of this detailed list of parameters is implausible. The only reasonable conclusion is that the inventors knew their invention would work after the Barlage bench test and knew the parameters under which it would work. Their later protestations to the contrary are simply not credible.

The Court also found implausible Hagerty's testimony about documents he found either not material or "cumulative," such as the Ethanol System Diagram and the July 31 Proposal. See, e.g., Hagerty – Direct at 1202 (discussing why the June testing was not disclosed because it was in Defendants' allegations), 1215 (discussing why the Barlage test results were not disclosed) Hagerty – Cross at 1299-300 (discussing the July 31 Proposal). Hagerty claimed that as he looked at documents, he determined individually, but looking at them "as a whole," whether or not they were relevant. Hagerty – Direct at

1208, 1238; Hagerty - Redirect at 1352, 1355-57; 1367. He testified that the Ethanol System Diagram did not tell him anything about the inventions or was cumulative. Hagerty – Direct at 1181-82; Hagerty – Cross at 1299-1300; Hagerty – Redirect at 1350. But, it is clear from these statements that he failed to put it in the context of the contemporaneous emails and other documents regarding the discovery. In other words, he purposefully looked at each document in isolation without reference to the total understanding of the inventors or Agri-Energy at the time. Further, Hagerty admitted that he did not ask the inventors who witnessed Barlage perform the bench-top test at Agri-Energy, or to explain the diagram to him, or to explain the equipment discussed in the July 31, 2003, offer letter. Hagerty – Direct at 1038-39; Hagerty – Redirect at 1352. Because he was the representative of the inventors in the ex parte proceedings before the PTO, it was incumbent upon Hagerty to inquire of and himself grasp the entire picture rather than focus on singular indicia of discrete ideations. Further, Hagerty testified that he never saw other documents that contradicted his view of the case until 2014. Hagerty Direct at 1086, 1206-09; Hagerty – Cross at 1255-56; Hagerty – Redirect at 1375-76. When asked what he would have done if had seen certain documents prior to filing information disclosure statements, Hagerty said he would do an investigation. See, e.g., Hagerty -Direct at 1208. However, Hagerty never asked the inventors key questions about their invention or the meaning of contemporaneous documents and, after the litigation started, he relied on the litigation team to do all the investigation. The Court has already concluded that the litigation team investigations were inadequate.

The Court was unpersuaded by CleanTech's argument that two statements, one by each of the inventors, completely substantiated that the inventors did not intend the

July 31 Proposal to be an offer for sale because they had not reduced the method to practice. For example, CleanTech relies on an email Cantrell wrote to his marketing team on May 31, 2004, after the commercial test at Agri-Energy, stating, in part, that it was "a very successful first test. Remember, removing the oil from the syrup has never been done before." DX114. In addition, CleanTech relies on an email from Winsness dated May 30, 2009, in conjunction with the Raymon Bean investigation, which states, in pertinent part, "This patent was developed over '03, 04 and filed 8-19-04 and we produced our first quote in Sept '04 (it was important that we not quote before filing)." DX688. But, by 2004, and certainly by 2009, the inventors had talked with Dorisio (and later Hagerty) and had information from him about the consequences of offering an invention for sale more than one year prior to filing and had researched and obtained similar information from the PTO website. Dorisio Video Trial Testimony; DX788; DX751; Winsness – Direct at 560. At trial, the Court doubted Cantrell's testimony in its entirety for the reasons already stated, but even if it had not, his testimony about the development process was contradicted by so many other contemporaneously-produced documents that it was not credible. For example, multiple documents written by or endorsed by the inventors or VDT claimed that they derived the new process by their work in the poultry industry. See, e.g., DX109; DX110; DX142; DX151, DX158. However, at trial, Cantrell completely disavowed the majority of these statements saying that he misspoke or it was not true and blamed his poor writing skills. See, e.g., Cantrell – Direct at 125-27 (disavowing anything to do with preparation of DX792, a memorandum regarding the invention to Dorisio); id. at 205 (claiming that DX109, a memorandum he prepared dated June 11, 2004, had misstatements about the connection between the meat industry and the

ethanol industry); 206-07 (disavowing quoted statements in DX151, an article dated August 2005); *id.* at 209 (claiming that he never read the provisional application filed by Dorisio on his behalf); *id.* at 211 (claiming a VDT executive summary dated January 17, 2005, DX158, which indicates him as an author, was "written wrong in what I wrote"). In other words, it is not reasonable to believe that all the documents that point away from an offer to sell are accurate, but all the ones that point toward such an inference are inaccurate. Further, the Court believes that the claims of the '858 patent family are broad enough to include a process that occurs outside of an ethanol facility, one in which the syrup is shipped to a contractor who heats it, then processes it through a centrifuge to obtain oil (a batch process) because only a few of the claims require a continuous process; as well as one on a small scale because none of the claims require a commercial process. Moreover, Cantrell's statement can still be true, but the inventors reduced the method to practice earlier and just merely proved commercial viability in 2004. This is the only reasonable inference in light of the remaining evidence.

Similarly, and also as previously discussed, Winsness evaded giving forthright answers during Defendants' direct examination and rarely looked the attorneys from either side in the eye when he answered. Even during points of the cross examination by CleanTech's attorney, Winsness failed to provide straight answers. His evasive tactics left the Court with the clear impression that he knew they had made a mistake by offering a system to Agri-Energy in early August 2003; but, later, recognizing the mistake, he wanted to make it appear as if they would not make such an offer until after the provisional application was filed. In other words, the Court believes Winsness purposefully dropped this phrase to create the false impression that the July 31 Proposal meant something

other than what the inventors and VDT originally intended. Further, Winsness' credibility was severely undermined when he disavowed that the invention disclosure he wrote would be relied upon by the attorneys to help them prosecute the patent because the lawyers, including Dorisio, had no other way to get the basis of the invention story. Moreover, as to the key paragraphs of that disclosure, where he describes the bench-top testing as a success, Winsness had no good answer for why he failed to correct the statement when he sent the document to Hagerty in 2008, but corrected other information showing oil recovery in the Barlage centrifuge tests.

All in all, the Court is left with the firm impression that the inventors made a mistake in July/August 2003 and offered their invention for sale to Agri-Energy. Later, they took affirmative steps to hide that fact from their lawyers, then, later the PTO when they learned that it would prevent them from profiting from the patents.

Further, from the beginning, attorneys for CleanTech placed this patent case on a precarious platform. Counsel chose to aggressively pursue patent infringement suits in multiple forums while simultaneously prosecuting further family patents. Deciding to litigate and prosecute simultaneously, while taking a potential financial interest in the patents themselves, necessitated the creation of a litigation team and a prosecution team. The schism in the dual plan was the failure to provide for an individual responsible for coordinating these efforts so that documents discovered during litigation would be earmarked for presentation to the patent prosecution attorney. And further, no one was charged with the task of being sure that the advocacy required in litigation did not taint the candor required in the PTO.

O'Brien made it clear that no one was in charge of ensuring that Hagerty received documents that were discovered during the litigation that bore witness to the inventor's or Agri-Energy's perception of their interactions during the 2003 and 2004 timeframe. O'Brien — Direct at 861. Moreover, the lawyers' repeated statements that they concentrated on "pre-critical date documents," O'Brien — Direct at 831, 8942, 845, 847, 850, 855, 860; only heightens the notion that Hagerty's focus was purposefully and, in this Court's view improperly, narrow. The fact is, material documents related to the true invention story and the on-sale bar were never revealed to the PTO in the prosecution of any patent in the '858 patent family and the inventors allowed the false story to be told.

The '858 Patent – Looking at each patent individually, the Court must determine whether material documents were intentionally excluded when they should have been submitted. Taking the '858 patent first, when Dorisio filed the non-provisional application for the '858 patent in May 2005, he filed a letter in which he stated that Prevost "may be found to claim the same invention as at least one of the instant application." DX686; Stipulations ¶ 7. Hand-written notes on the Prevost application indicate that Dorisio, or someone in his firm working on the file, believed that the reference in Prevost Claim 19 to "15 wt. % water" was a mistake. DX684. This substantiates Dorisio's claim in the non-provisional application that Prevost may be found to claim the same invention as at least one of the claims in that application. Further, in July 2005, Dorisio's firm had prepared a patentability and clearance opinion that he shared with the inventors. DX788. Therein, the firm referenced an invention date in 2003 that coincides with the Barlage testing and July 2003 bench-top testing at Agri-Energy. There is no written record that the inventors

disagreed with the conclusions in the opinion. It is clear that the original strategy was to swear behind Prevost.

Hagerty received the patent prosecution file in March 2008, and testified that he waited to review it until the PTO issued the June 13, 2008, office action in the '858 patent prosecution, which rejected all of the claims. Hagerty – Direct at 978, 981. Hagerty claims that at this time, he did not have Dorisio's clearance opinion or Dorisio's hand-written notes regarding his view of Prevost. Hagerty – Direct at 981-82. But, to help him prepare a response to the first office action, on or around September 14, 2008, Winsness emailed Hagerty several documents including the invention story that he had told Dorisio and the Barlage test results. DX792. Therein, Winsness stated the following regarding the 2003 tests:

Discovery:

We tested the syrup in June 2003 using a bench top centrifuge (we have documentation on file).

We poured "syrup" into a continuous disk-stack centrifuge a[nd] were able to separate the oil from the water cleanly.

WHAT IS UNIQUE ABOUT THIS?

Disk-Stack Centrifuges [sic] are designed to separate oil from water. In this case, however, the product contains high levels of solids, which exceed the normal design limits of disk stack centrifuges. During the bench-top test [sic] however, it appeared that the solids would not foul the centrifuge and led us to believe that the process would work on a commercial scale.

DX792 at GCS(PRIV)001605). Winsness' email also contained the Barlage test results, which included the conclusion that something in the heating process broke the emulsion and allowed oil to be recovered from the syrup; Winsness' note to Hagerty clarified these results. See DX792 at GCS(PRIV)001591 & GCS(PRIV)001614-20. At this time, Hagerty also had a copy of the Ethanol System Diagram.

In response to the office action, Hagerty substantively amended the claims and distinguished the prior art, stating, in part, that Prevost did not teach heating of the thin stillage concentrate then mechanically processing it to remove the oil. DX273. The amendments and arguments were not enough to get the '858 patent issued; rather, on December 22, 2008, the examiner issued a final rejection. PTX2059 at 112. In response, in addition to his previous statements regarding Prevost, Hagerty claimed that the inventors had "discovered that its claimed processes frees a portion of the bound oil as a result of evaporating the thin stillage to remove water and form a concentrated byproduct. Removing a portion of the bound water breaks the emulsion allowing mechanical processing to further separate and recover the oil." PTX2059 at 101. Hagerty's protestations otherwise, this statement clearly has its roots in the June 2003 Barlage test results conclusion; there is simply no other part of the record from which either inventor claimed to have made this "discovery." At this point, not providing information regarding the inventors' dealings with Agri-Energy or the Barlage bench-top test raises an inference that the patentees intended to deceive the PTO – it was pre-critical date information that had a direct bearing on the ability of the inventors to prove that their claims were patentable. But, Hagerty made no such disclosure and the inventors said nothing either.

In April 2009, shortly after Hagerty submitted this response to the final office action, the PTO issued a notice of allowance; Hagerty paid the issue fee in May 2009. Stipulations ¶¶ 9 & 10. Based on Hagerty's arguments that incorporated the Barlage test result conclusions, the Court concludes that the examiner would have found those results material.

On June 5, 2009, Hagerty withdrew the application from issue and filed a new information disclosure statement listing additional prior art. Also on the same date, Hagerty filed his letter that specifically pointed out feasibility testing that had occurred in May 2004, where oil was recovered using the proposed process and subsequently sold. DX284; Stipulations ¶ 12. Hagerty admitted that this had no relevance to the prosecution of the '858 patent and the Court found contrived his explanation that it had something to do with consistent disclosures of prior art amongst patent families. There was no effort made to disclose the year-earlier documents upon which Hagerty had based his arguments to overcome the final rejection by the PTO; rather, he filed an irrelevant letter, which created a false impression that the first time information existed to confirm the method was May 2004. The inventors did nothing to clear up the error. The Court can only conclude that Winsness and Cantrell intentionally allowed Hagerty to create this false impression and that Hagerty, knowing and relying on facts to the contrary, purposefully withheld the results in 2003 in favor of the new story.

The '516 and '517 Patents – With respect to prosecution of the '516 patent, on September 30, 2005, Dorisio filed the application that led to the '516 patent. DX279. There was no substantive or relevant activity on the file before Hagerty received the Winsness/Cantrell patent portfolio from Dorisio in March of 2008. *Id.*

On June 17, 2008, the examiner rejected the selected method claims in light of Prevost and a patent to Yokoyama. *Id.* In response, on September 16, 2008, Hagerty amended the claims and made substantively similar arguments as those he made in the '858 patent prosecution:

Prevost fails to teach or suggest a post-evaporation process for recovering oil from thin stillage that includes, inter alia, mechanically processing the

thin stillage concentrate to separate oil from the thin stillage concentrate (claim 1) or disc stack centrifuging oil to form a substantially oil free concentrate (claim 4).

DX274.

On December 26, 2008, the examiner again rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over "Minowa *et al.*" in view of Prevost *et al.*" DX279. On February 3, 2009, in response to this objection, Hagerty again amended the claims and argued, "Applicants have carefully studied Prevost and can find no teaching or suggestion of a <u>post-evaporation process</u> for recovering oil from the thin stillage concentrate that includes centrifuging the concentrate to recover oil." *Id.* Hagerty also argued, as he had in the '858 prosecution, that the inventors had discovered that the heating freed up bound oil. *Id.*

On April 7, 2009, Hagerty filed an information disclosure statements in the '516 prosecution listing additional prior art. *Id.* On September 30, 2009, Hagerty filed an information disclosure statement, which again included prior art, but it also included the admittedly irrelevant statement regarding the May 2004 feasibility testing that he had also filed in the '858 prosecution. *Id.* There was no disclosure of the earlier 2003 Barlage testing, the bench-top test or the inventors' conclusions regarding the same.

On September 14, 2009, just shortly after Defendant GEA Westfalia filed its suit against CleanTech, Hagerty filed the application that led to the '517 patent. PTX2063. On the very same day, Hagerty files an information disclosure statement listing which included prior art and references the co-pending applications, but it also included the admittedly irrelevant statement regarding the May 2004 feasibility testing that he had also

filed in the '858 prosecution. *Id.* There was no disclosure of the Barlage 2003 testing, the Barlage bench-top test or the inventors' conclusions regarding the same.

In a petition to make special filed on November 12, 2009, in the '517 prosecution Hagerty uses identical language as he had in the '516 patent prosecution to distinguish Prevost. *Id.* Specifically, he states, in part: "Applicants have carefully studied Prevost and can find no teaching or suggestion of a <u>post-evaporation process</u> for recovering oil from the thin stillage concentrate that includes centrifuging the concentrate to recover oil." *Id.* at 251.

On February 17, 2010, the PTO issued a notice of allowance of the '516 patent. Id. On March 2, 2010, Cantor Colburn paid the issue fee. DX279.

As previously discussed, later in March 2010, the litigation team and Hagerty learned of the July 31, 2003, letter to Agri-Energy. Stipulations ¶¶ 19 & 20.

On May 13, 2010, Hagerty filed a Petition to Withdraw from Issue and a Request for Continued Examination in the '516 prosecution. DX279. On the same date, Hagerty submitted an information disclosure statement that contained some additional prior art as well as multiple complaints and answers and counterclaims of the parties in this MDL. *Id.* The petition was accepted by the examiner on August 2, 2010; and on August 11, 2010, the PTO issued a second notice of allowance for that application. *Id.*

On July 6, 2010, in the '517 patent prosecution, the PTO issues a rejection based on obviousness. PTX 2063 at 163. In apparent response, on November 9, 2010, Hagerty files an information disclosure statement with Cantrell's First Declaration and the Cantor Colburn litigation team's explanation of why the document is irrelevant. *Id.* at 142. Specifically, Hagerty repeats Cantrell's recollection that he hand delivered the letter on

August 18, 2003, after the critical date. *Id.* No mention of the pre-August activities at Agri-Energy, the Barlage test results or the Ethanol System Diagram are made.

Also on November 9, 2010, in the '516 patent prosecution, Hagerty submits a supplemental response, and Cantrell's First Declaration as part of an information disclosure statement, in which Cantor Colburn and Cantrell advise the PTO of the July 31, 2003, letter and Cantrell's recollection that the first time Agri-Energy saw the letter was August 18, 2003. DX279. Hagerty's supplemental response states that the letter is not material. *Id.* These documents are rejected as non-compliant by the PTO and resubmitted shortly thereafter. *Id.*

On November 23, 2010, the PTO granted the petition to withdraw. *Id.* On March 23, 2011, Hagerty filed another information disclosure statement in which he cited multiple patents and articles as potential prior art. *Id.* He also filed several Defendants' invalidity contentions. *Id.* There was no explanation with the documents nor were any of the documents underlying any of Defendants' contentions provided. *Id.*

On January 21, 2011, the PTO issued a notice of allowance for the '517 patent. PTX2063 at 125. But, in early March 2011, Hagerty filed a request to continue examination and an information disclosure statement. *Id.* at 52, 55. The information disclosure statement included invalidity contentions from many of the Defendants. *Id.* at 55. No explanation of the documents or copies of documents referenced within the contentions was made.

On April 21, 2011, in the '516 prosecution, the examiner issued another notice of allowance. *Id.* Cantor Colburn paid the issue fee on the same date. *Id.* But, on May 9, 2011, Hagerty again filed a petition to withdraw and an information disclosure statement

in which he filed additional potential prior art; the petition was granted on May 10, 2011.

On June 24, 2011, the PTO issued a notice of allowance for the '517 patent. PTX2063 at 10.

On July 22, 2011, the PTO issued another notice of allowance for the '516 patent; Cantor Colburn paid the issue fees the same day along with the issue fee for the '517 patent. DX279; PTX2063 at 5. Both the '516 patent and the '517 patent issued on August 30, 2011. DX279; PTX2063 at 1.

In prosecution of the '516 and '517 patents, the inventors and attorneys misrepresented to the PTO that the July 31 offer letter was immaterial by filing the false Cantrell First Declaration and by leaving un-rebutted the irrelevant 2004 feasibility testing letter. In the face of Cantrell's poor health, Winsness' and Cantor Colburn's reliance on Cantrell's recollection of the events surrounding the Q1, July 31, 2003, letter and the credit card receipts, as well as their lackluster investigation of events is solid evidence of purposeful behavior. It appears to the Court that the lawyers ignored the red flags waiving before them. In order to believe Cantrell, they had to ignore other evidence that the inventors thought they had a discovery in 2003, such as Winsness' invention story, the Barlage test results (which Hagerty relied upon, in part, to convince the PTO to allow the '858 and '516 patent claims), and the Ethanol System Diagram.

Moreover, the lawyers had to ignore the suspicious timing of Wisness' visit to Agri-Energy in June 2010, after he had learned that competitors had opinions of counsel that concluded the patents were invalid because they were offered for sale. Although the lawyers did not know of Winsness' visit before it occurred, they knew of it afterward, because Rye sent his letter to Agri-Energy shortly thereafter. To the extent it has not already done so, the Court finds that Winsness threatened Agri-Energy with legal action if it did not corroborate his and Cantrell's story. In addition, the Court finds that Rye's letter was a thinly-veiled threat and was not a truth-seeking inquiry. By itself this may perceived as an accepted tactic in patent litigation. None-the-less, this correspondence was just that, a litigation tactic, not a request for information.

Further, no one, not even Winsness who was familiar with VDT's deals in 2003 and likely drafted the very letter at issue, thought it would be prudent to talk with Lauderbaugh, the team member who accompanied Barlage to Agri-Energy in June 2003 and, as the sales representative with the relationship with Agri-Energy, to see what he remembered about Cantrell's visit in August 2003.

Finally, if Winsness and the lawyers were convinced that the July 31, 2003, offer letter was not an offer for sale and had always believed that to be true, as they all testified at trial, then why did they decided to throw away months of work by O'Brien, who spent considerable time drafting a detailed disclosure regarding the invention story (which referenced the Barlage test report and the Ethanol System Diagram) and just explain why the July 31 letter was not an offer for sale? The only reasonable inference is that they believed the inventors had made an offer and, with the feasibility testing letter already before the PTO in both prosecutions, DX279A ('516 Patent File History Excerpt), DX280A ('517 Patent File History Excerpt), which implied a later reduction to practice date, they chose advocacy over candor. This is a consequence of pursuing litigation and prosecution simultaneously. Here, these principles, very apparently, got mixed.

The '484 Patent – With respect to the '484 patent prosecution, on May 13, 2011, Hagerty filed the application. DX288. On July 21, 2011, Hagerty filed an information disclosure statement including initial pleadings in the various lawsuits that comprise the original MDL. *Id.* On the same day, he also filed the admittedly irrelevant feasibility testing letter that is identical to the one filed in the '516 and '517 patent prosecutions and Cantrell's First Declaration, which falsely states that the July 31, 2003, offer letter was hand delivered on August 18, 2003. *Id.*; Stipulations ¶ 34. No reference was made to the earlier testing at Agri-Energy or the Ethanol System Diagram.

On July 27, 2011, Hagerty filed another information disclosure statement in which he included Defendants' invalidity contentions. *Id.* Again, there was no disclosure of the 2003 testing at Agri-Energy or the Ethanol System Diagram.

On September 21, 2011, Defendants deposed Cantrell and the August 1, 2003, email with the July 31 Proposal attachment was disclosed. At this point, the inventors and Cantor Colburn know for certain that Cantrell's First Declaration is false. The Court finds strong evidence of intentional deceit in the ensuing delay by Cantor Colburn in investigating the facts and Winsness' equally nonchalant response. As previously discussed, by this time, Hagerty had relinquished control of investigating the facts with the inventors. The Court disagrees with Hagerty's claim that this was reasonable because of the ongoing litigation. Once he made that decision, objective prosecution of the patents became extremely problematic. That a shiver went down his spine upon learning about the August 1, 2003, email is the most believable statement Hagerty made — he realized they were in trouble. His and O'Brien's later testimony at trial did not

plausibly explain the delay that occurred between the discovery of the August 1, 2003, email and the preparation and filing of Cantrell's Second Declaration.

Notwithstanding the amount of time that elapsed between late summer 2003 and September 2011, Winsness most likely created the draft of the letter that was sent to Agri-Energy and knew the key players at the Agri-Energy meeting in 2003, including Lauderbaugh. Yet, even at trial, Winsness claimed that he thought the email might be fabricated. For the reasons previously stated, Winsness was not a credible witness, but this testimony strained reasonableness. SRS told him in May or June 2010 that it had an opinion of counsel that the patents were invalid and he connected that immediately to VDT's work with Agri-Energy. His visit to Agri-Energy so quickly after the SRS meetings and his failure to alert his lawyers to his impending visit there evidences his true purpose, which was to bury any notion that VDT had made an offer or that Agri-Energy perceived it as such.

On December 13, 2011, the PTO issued an office action rejecting all the claims of the '484 patent, in part, based on obviousness, citing Prevost and other references. *Id.* As previously discussed, Hagerty responded on February 10, 2012, three months prior to the deadline, without reference to the inaccuracies in Cantrell's First Declaration because he was waiting for the litigation team to finish its investigation. There is no evidence that Hagerty or anyone else was preparing any kind of information disclosure statement at this time. If the Court has not already stated it clearly, and it bears repeating if it already has so stated, Cantor Colburn's delay was unjustified. Winsness and Lauderbaugh were always available to question. Further, O'Brien's explanation for not issuing a subpoena to Agri-Energy sooner than August 2011 is more excuse than reason, and certainly the

lawyers should have had the Agri-Energy documents before February 2012. With Cantrell's health obviously in question and his memory now demonstrably faulty, O'Brien's, and by acquiesce and possible deference, Hagerty's, reliance on any more information from Cantrell about the events that occurred in 2003 demonstrates poor judgment. In their pursuit of additional pickets in the fence against competitors, it appears to the Court that the attorneys substituted advocacy for candor in the ex parte proceeding occurring before the PTO.

O'Brien finally drafted Cantrell's Second Declaration; the Court disagrees with O'Brien's characterization of it as "clear." His rambling justification for it and repeated claims that he intended for it to be "clear," in addition to the lack of drafts, evidenced a carelessness and lack of sincerity that clinches the inference that he was trying to cover up his misdeeds with compounded complexity. As previously discussed, the declaration did not distinctly point out the misrepresentations in the first declaration. Moreover, in this Court's view, inundating the PTO with arguments from the Defendants, many of them incomplete, is not the kind of candor contemplated by the Federal Circuit in Rohm & Haas and Intellect Wireless. Hagerty testified that he made the decision to file Cantrell's Second Declaration and the documents in favor of any explanation, but also claims not to have seen many documents that were introduced during Cantrell's deposition or that Defendants' relied upon in their arguments. In fact, it was not clear whether or not he even saw the un-redacted copies of pleadings he sent in. Both O'Brien and Hagerty said that letting Defendants tell their story was the best way to put the information before the examiner because it was the most bias view of the facts. O'Brien - Direct at 850, 851-52; O'Brien – Cross at 902; O'Brien – Redirect at 911-12; Hagerty – Direct at 1175, 1187,

1192, 1202-03, 1209-15, 1218; Hagerty – Cross at 1322-23, 1326, 1328-33. But the Defendants' filings were not evidence that the Barlage tests had occurred prior to Agri-Energy's receipt of the letter; or that the day after the bench-test the inventors prepared drafts of an offer letter and later described the test as a success; or that the inventors had prepared a drawing of a system for oil extraction, labeled with "Ethanol System" in its title, that included a disc stack centrifuge, a point that Hagerty had argued distinguished the invention from prior art. In fact, a many of the documents were redacted and never mentioned Agri-Energy.

To the extent it is necessary, the Court incorporates by reference its discussion above regarding the failure of the attorneys and the inventors to follow the dictates of the Federal Circuit in *Rohm & Haas* and *Intellect Wireless*. For those reasons, as well as the reasons outlined here, the Court concludes that the inventors and the attorneys intentionally withheld material information from the PTO during prosecution of the '484 patent.

III. SUMMARY

For the reasons stated herein, the Court has concluded that the '858 patent, the '516 patent, the '517 patent and the '484 patent are unenforceable because of inequitable conduct before the PTO. Judgment shall be entered accordingly.

IT IS SO ORDERED this 15th day of September, 2016.

ARRY J. McKINNEY, JUDGE

United States District Court Southern District of Indiana

Electronically distributed to all registered counsel of record via ECF.